

Two million jobless in UK forecast for 1981

More than two million people, including school leavers, will be out of work in the United Kingdom by this time next year, according to confidential government figures. This represents an increase of 24 per cent. Industrialists forecast three million unemployed in four years' time in a Gallup poll.

Government figures estimate 24% rise

By Donald Macintyre
Labour Reporter

The Government is working on the assumption that the adult unemployment total for Great Britain will rise by nearly a quarter between now and this time next year.

Manpower Services Commission forecasts have estimated that the total for the first quarter of 1981 will reach 1,820,000, representing a year-on-year increase of 24.1 per cent.

The confidential figure is contained in an internal MSC memorandum. If the totals for schoolleavers and Northern Ireland were included, more than two million people would be registered as unemployed in the United Kingdom by early next year.

The Government has already made public, in its November White Paper on expenditure, a working assumption of an average unemployment total of 1,650,000 during 1980 but the new projection, from the Government's front-line agency in dealing with the unemployed, is the most detailed yet to emerge from official sources.

Based on detailed region by region forecasts, the MSC table reveals figures (which are rounded rather than seasonally adjusted) of 1,467,000 for the current quarter, 1,581,000 for the third quarter of this year, and 1,820,000 for the first quarter of next year. The estimated year-on-year increase between the third quarter of last year and the same period in 1980 is 31.1 per cent.

The increase may prove to be greater than these figures suggest. The MSC projections take into account a Treasury expectation that economic activity in Great Britain will decline, as a result of world recession, by 2 per cent; while economists are already expected to be considering a revision of that estimate. The figures emerge against a background in which the MSC has been forced to reduce some of its programmes because of public spending cuts. The commissioners are meeting at the end of the month to consider how to implement a further £30m cut in its annual budget to be imposed from 1981-82.

Taking into account cuts already made in its projected spending since last June's budget, and a 12.9 per cent reduction in staffing levels ordered under the December Civil Service reductions, the MSC has estimated that its 1983-84 projected spending will now be about £200m below previous estimates of between £200m and £300m.

The MSC's corporate plan for 1980 to 1984, which was released

'Sons of Lenin, what are you doing here?' ask posters appearing on walls of Kandahar

Afghans begin to understand permanence of Soviet Army's presence

From Robert Fisk
Kandahar, Feb 17

The cry of *Allahu akbar* (God is great) begins as a thin, high-pitched wail over the rooftops of Kandahar just after the 9 o'clock curfew. It sounds at first more like a yodel than an appeal to God, but as it is taken up across the darkened city, the call acquires a curiously mesmeric effect, a long chorus of discordant, unending, desperate sound—the cry of an otherwise silent people.

The shouting has grown a little quieter of late as Kandahar, in western Afghanistan, has begun to understand—though not accept—the permanence of the Soviet presence round the city. The bazaar closed down for more than a fortnight but five days ago a squad of Afghan soldiers went round the streets and warned shopkeepers that their stores would be smashed if they did not reopen.

There are no more protest demonstrations in the streets, and the Government's control over the city is apparent near the blue-domed Khalkisharif Mosque where chain-smoking Afghan soldiers lounge in the back of a lorry.

The five insurgent groups which operate south of Kandahar have now united. For the first time, the mullahs have told the city's 80 per cent Sunni population that they should be 'aware of events'—a seemingly over-discreet but nonetheless unprecedented reference to the Soviet intervention.

More intriguing, however, is the series of poorly printed posters that have in the past few days made their appearance on the walls of the bazaar. One says: 'The people are asleep—why do you not wake up?' Another—addressed to Soviet troops—says simply: 'Sons of Lenin—what are you doing here?'

It is as yet a muted reaction. The emphasis is on a growing public awareness of political realities rather than outright enmity towards the Soviet Union. The poster addressed to the Russians, for example, is written in Pushtu, a language with which Soviet troops are unlikely to be over-familiar. And although there are rumours of local political in-

fighting between the Parcham and Khalqi movements within the governing People's Democratic Party, there have been no attacks on the Kandahar party headquarters by the *mohajeddin* guerrillas.

Assuring Allah of his greatness every night at 9 o'clock is not going to have any palpable effect on the Soviet troops encamped at the city's airport nine miles to the south. A squadron of MIG21 fighter aircraft are parked near the control tower and Russian convoys have been moving further south. Five days ago, people in Kandahar watched from their windows as a column of tanks, tracked armoured vehicles and lorries drove through their city. The first tank was seen just after 9 pm and the convoy continued to pass the city centre—the vehicles travelling nose to tail—until 4 am. Much of this armour is said to have been positioned on the southern road towards Spindboldak on the Pakistan border.

In Kandahar, inflation has cut into wages, and food prices have almost doubled since December as transport has been

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Steel strikers offer 'lifeline or nothing'

By Paul Routledge
Labour Editor

Steel union leaders offered the British Steel Corporation a "lifeline" in peace talks last night but predicted that the industry's radical strike will go on into its ninth week.

General secretaries of the dominant Iron and Steel Confederation and the National Union of Blastfurnacemen put their proposal of an agreed document of job flexibility, training levels and productivity bargaining to BSC executives during an encouraging three-hour meeting at Tees-side Airport, near Darlington.

The initiative will be taken up in a further round of joint talks in London on Friday, when the union will spell out how far they are prepared to go in changing working practices and how much they want in return.

Mr William Sims, general secretary of the confederation, said after the talks: "We have given them the opportunity of a lifeline, and if they do not accept that, they have nothing." He would not put a price on the joint document but argued that British Steel should divert money from the £270m it has earmarked for redundancies this year into a pay deal.

The steelworkers have rejected the corporation's offer of 10 per cent for acceptance of a comprehensive agreement on flexible working and reduced manning together with a minimum of 4 per cent on the conclusion of local productivity deals.

The confederation executive meets this morning to consider its next move in the dispute. Mr Sims is expected to be given full backing for the renewed peace initiative.

British Steel management was last night cautiously optimistic about the prospects for a resumption of full-scale negotiations.

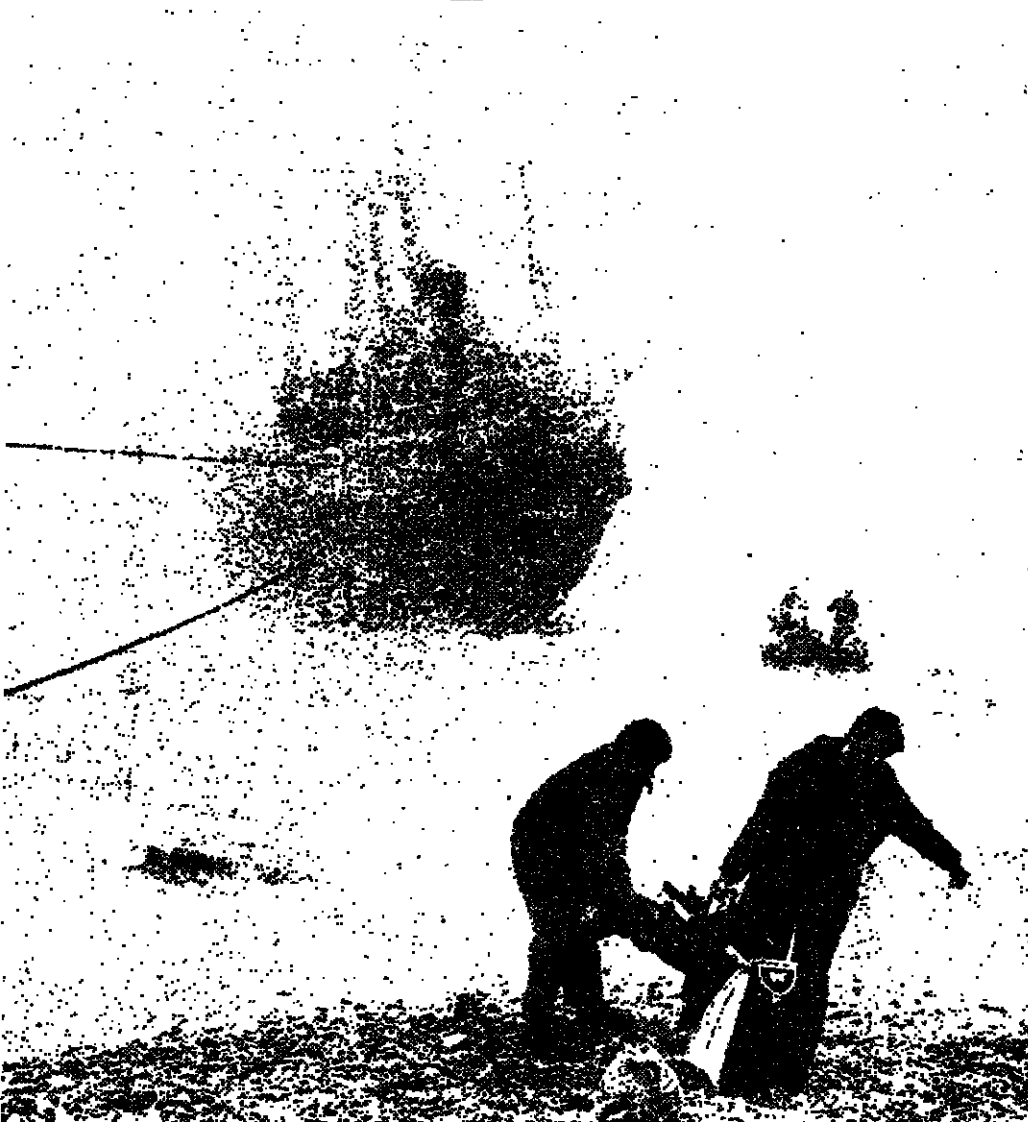
Mr Robert Scholey, the corporation's chief executive, said: "They will give us their definitive position. We have said we will look at it."

"But so far as the final offer is concerned, we are at the limit of our funding. If their proposals require an increased percentage they had better set out by means of which they will be determined."

British Steel was disappointed that the steelworkers and blastfurnacemen yesterday rejected both arbitration and joint negotiations with leaders of the craft and general workers, whose efforts to reach a separate settlement failed last week. But it is encouraged that the ISCU and NUB are to put a firm set of demands on paper.

The two sides are still deeply divided on a number of key issues, including the impact of economic policies on the health of the manufacturing sector.

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Beached coaster refloated: The Athina B being refloated from Brighton beach yesterday. Thousands peered through the mist as the Greek coaster, which ran aground in a storm last month, was towed away by a tug while a Salvation Army band played *Rifle Britannia*. Champagne was provided by a hookmaker who had offered odds against the operation succeeding. The ship, balanced on her starboard side by bags holding thousands of tons of water and guided by cables four inches thick, swayed gently as the spring tide floated her off. She is being towed to the Medway to be scrapped.

Mr Mugabe fails to attend party rally after 'threats to safety'

From Dan van der Vat
Bulawayo, Feb 17

Mr Robert Mugabe, leader of the radical Zanu (PF) Party in the Rhodesian election, abruptly cancelled his scheduled appearance at a party rally here today. His move followed the startling official admission this weekend suggesting that Rhodesian security forces may have been responsible for at least one of last week's church bombings in Salisbury.

Up to 50,000 people had gathered in the blazing sun to hear Mr Mugabe, even though this region is solid for Mr Joshua Nkomo's Patriotic Front Party. When Mr Nkomo came to the same place, Barbourfields football ground, about 200,000 people turned out.

At the stadium, Zanu (PF) officials told correspondents that Mr Mugabe had been forced to change his plans because of "threats" against him, about which they had been informed, and because of the general security situation. They rejected suggestions that he had decided not to appear because the crowd was not big enough.

In Salisbury yesterday, an unprecedented statement was put out by combined operations headquarters of the Rhodesian security forces. It disclosed that the two men who died on Thursday when a bomb went off in their car, were black soldiers of the Rhodesian Army, a lieutenant and a corporal.

The explosion occurred near a church in Harare township. Later the same evening two other churches, Blast from one explosion caused extensive surface damage to Salisbury's biggest hotel. On Friday an unexploded bomb was found at the side of the Roman Catholic cathedral in the city. On it were written pro-Zanu (PF) slogans in bad Shona, the language of the regions which most strongly support the party.

Police sources immediately concluded that a Marxist campaign of terrorism against the Christian churches had begun. Others took a less simplistic view which now appears to be vindicated.

The combined operations statement said: "It has been established that about 35 minutes before the explosion (at Harare), the two men had made a telephone report to their duty officer. They had information about the presence of two Zanu (PF) military wing terrorists. The men were instructed to follow up their information and to report back when possible."

The communiqué does not explain how two soldiers came to be sitting in a private car; what they were doing in a township; or why they had seen fit to do work reserved for the police. It then goes on to report the deaths of the lieutenant and the corporal, both aged 27, as if these were unrelated.

The men's unit was not given, but it is understood here that they were members of the Selous Scouts, the tough special operations and "dirty tricks" unit of the Rhodesian Army, widely known to disguise themselves as guerrillas when it suits the occasion.

Muzorewa campaign, page 4

Graham Sutherland dies in hospital

Graham Sutherland, the painter, died last night at the Royal Free Hospital, Hampstead, London. He was 76. He and his wife, Kathleen, whose main home for more than 20 years had been near Menton in the South of France, had spent January, as was their practice in Milford Haven, Wales, the nearby estuary of which inspired some of his finest works. But Mr Sutherland felt increasingly unwell, and it was discovered he was suffering from a tumour of the stomach. He will be buried in the village of Trarctcliffe, Kent, where he and his wife lived off and on since the late 1930s.

Engineering in decline

Britain's engineering companies face at least 18 months of recession and a decline in orders of up to 20 per cent, according to a report published today. It blames the Government for changing its economic policies and for the health of the manufacturing sector.

Two questioned on colonel's death

Bielefeld, West Germany, Feb 17.—The public prosecutor here today offered a DM50,000 (£12,500) reward for information leading to the arrest of a man and woman who killed Colonel Mark Coe of the British Army of the Rhine here last night.

Coe, 43, a father of six, was shot as he drove out of his garage. Though hit by three bullets, he managed to drag himself into the hall of his house. He died in hospital four hours later after unsuccessful surgery.

Later a British military spokesman at Rhine Army headquarters said an Irishman from Dublin and a German woman were being questioned.

German police over the shooting. A police spokesman said police were investigating the possible involvement of the Irish Republican Army.

Later German police sources confirmed that a Dublin man and his German-born wife in their 30s had been questioned in the case, but they emphasized that no arrests had been made.

The spokesman said a neighbour saw a man and a woman out of the shadows after Colonel Coe parked his car. They opened fire immediately and then ran off down the street.

The neighbour said the male gunman appeared slightly shorter than his female accom-

Transport emergency at games

Lake Placid, Feb 17.—A "limited state of emergency" was declared in the area of the winter Olympic Games site during the weekend as thousands of would-be spectators were trapped for hours in snow-bound car parks.

The emergency powers, invoked by Governor Hugh Carey of New York, enabled the state's Olympics task force to hire more buses and make special overtime arrangements with bus drivers to keep traffic flowing in the Adirondack Mountains region.

The action was required yesterday after thousands of ticket holders to the games tried to reach Lake Placid in their own cars, rather than using buses hired to bring them to sports venues from car parks on highways leading into the isolated area. Overnight snow added to the problems.

Between 4,000 to 5,000 people were forced to wait in car parks at Keene, 30 miles from Lake Placid for up to two hours because there were not enough buses to move them. Reuters.

Unsold tickets: In Montreal, the expected influx of tourists during the games has not materialized and one contractor still has 8,000 tickets left to sell out of a total of 15,000. Only one bus a day is leaving Montreal for Lake Placid (Our Montreal Correspondent writes).

Mr Pierre Morin of the Quebec Chamber of Commerce, which has been helping the Lake Placid Olympic Organizing Committee, said that tickets were not supplied far enough in advance. In Europe tickets should have been available by the spring of 1979, he said, but were not on sale until the autumn.

At the same time the committee underestimated the number of people from the immediate area who would be travelling to the site daily, he said.

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Tito illness eases but still critical

Belgrade, Feb 17.—President Tito's condition eased slightly today, but doctors said he was still gravely ill.

Official sources said the medical team treating the President had apparently halted further deterioration in his heart and kidney functions, and he now had periods of consciousness.

On a cautious note they emphasized that his overall condition remained critical, and that the slight easing was not necessarily significant.

The President, earlier reported in a coma, was drifting in and out of what was described as "deeper sleep", but had exchanged a few words with senior officials visiting him at his hospital bedside at Ljubljana, northern Yugoslavia.

A medical bulletin said his general state of health was unchanged, but there was no mention of the "significant weakening" of his kidney functions reported 24 hours earlier. Yesterday's bulletin described his condition as grave.

The sources said there was a slight response in the action of his kidneys this morning.

Three days ago, official sources said hope of saving the President's life had been virtually abandoned because of serious complications following the amputation of his left leg to clear an artery blockage.

Today, other sources in close touch with the situation said it might still be possible to "stabilize" his condition, but they ruled out any chance of full recovery.

Photograph, page 4

Earnings rise by 20% Treasury study shows

By Caroline Atkinson

Pre-Budget Treasury forecasts show earnings rising at nearly 20 per cent in this pay round and are much more pessimistic about the prospects for price inflation than the last forecasts published in the autumn.

They will add to growing concern within the Government about continuing high inflation and high interest rates. An earnings increase of this size would put severe upward pressure on interest rates.

Treasury ministers and the Prime Minister had hoped that interest rates would start to come down. They are unhappy about the present high cost of borrowing. However, intense pressure in the money markets in recent weeks, coupled with worsening inflation, has reduced the prospect of lower interest rates.

The Budget is likely to be shaped with inflation very much in mind. There is strong pressure on the Chancellor to bring the public sector borrowing requirement below £10,000m as the only way of getting interest rates down.

The grim prospects for inflation, underlined by last week's figures for both wholesale and retail prices, could lead the Government to forsake income tax cuts or even to raise income tax to avoid putting up indirect taxes.

For some weeks the Treasury has been considering saving money in the Budget by not raising income tax allowances in line with inflation or by abolishing the lower rate tax band.

A reduction in the company tax

Party lead varies in Canada polls

The Liberal Party remains favoured to win the Canadian election, according to opinion polls. But while a Gallup poll shows the party strongly ahead, a television survey gives it a 10 per cent margin only.

Summons threat to police chief

A select committee of MPs is threatening to issue a summons to Sir David McNeen, Commissioner of the Metropolitan Police, if he maintains his reluctance to give evidence before it. Other police chiefs have been invited to give evidence on picketing and demonstrations.

On other pages

from Mr David Madel, MP, and Mr Richard York, QC; village schools, from Mr Keith Jones; the Vikings, from Dr David Abulafia and Mrs John Kerr	Leading articles: Irish unity; Breakdown in Lebanon; Arts, page 7	Philip Howard reviews Dictionary Johnson, James L. Clifford's account of the middle years of Samuel Johnson; Margaret Perle interviewed by John Percival; Michael Raccitelli on The																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									</
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HOME NEWS

Sir David McNee may be summoned by Commons committee

By Michael Hatfield
Political Reporter

An all-party Commons specialist select committee is threatening to issue a summons to Sir David McNee, Commissioner of the Metropolitan Police, if he maintains his reluctance to come before it and give evidence.

That was made clear last night by Mr John Gilling, the Labour chairman of the Select Committee on Employment, and Mr John Goss, leader of the Tory backbenchers on the committee.

The committee has invited a number of chief constables to give evidence next week on picketing and demonstrations, but Sir David has told it that he is reluctant to appear.

Mr Goss (Barnet, Hendon, North) who was closely connected with the Grunwick picketing affair, said last night: "My understanding is that he is showing reluctance, and the committee naturally wish to examine him. If necessary the Sergeant at Arms will be sent to summon him."

Mr Goss added: "I cannot understand his reluctance, because there has never been more sympathy for the police in the House of Commons than there is at present. He will certainly be assured of a sympathetic hearing."

Mr Gilling (Newcastle-under-Lyme) said: "The select committee will always insist on seeing the person in authority and will accept no excuses or substitutes from anyone."



Sir David McNee: Reluctant to appear before MPs.

Mr James Prior, Secretary of State for Employment, is to give evidence to the committee on Wednesday, and Mr Gilling said that at first the Department of Employment had suggested that Mr Patrick Mayhew, Parliamentary Under-Secretary of State for Employment, should be the witness.

"We insisted that we wanted Mr Prior to be the minister giving evidence," Mr Gilling said.

The committee is to send an invitation today to Mr James Brownlow, Chief Constable of South Yorkshire, whose officers have been on duty at the picketing of Hadfields, Sheffield, to give evidence.

Ministers try to stop MP's revolt

By Our Political Reporter

Government ministers will try tonight to head off a "rural revolt" by Tory backbenchers which could be far bigger than that over school transport last week.

Mr Patrick Jenkin, Secretary of State for Social Services, is to address a joint meeting of the backbench committees on agriculture and the environment, and to discuss the survival of sub-postoffices.

More than sixty Conservative MPs have signed a motion demanding assurances and so far none has been given. The backbenchers are afraid because the Opposition is expected to lay a trap in a debate tomorrow by tabling a motion similar to theirs. Without some assurance from the ministers they will feel obliged, at least, to abstain if not to vote against the Government.

It was explained last night, however, that Mr Jenkin would not be in a position to give assurance on the payment of welfare benefits through sub-postoffices because no Government decision has yet been taken.

The ministerial working party to consider the various proposals of Sir Derek Rayner in his efficiency report has so far not even met.

The total saving of all the proposals in the Rayner report is estimated at £35m to £50m.

By-election choice by Tories

Mr Edward Taylor, former Conservative spokesman on Scottish affairs, was chosen on Saturday as prospective candidate for Southend, East. A by-election is to be held shortly. He lost Glasgow, Cathcart, at the general election.

The by-election is caused by the death of Sir Stephen McAdden. The Conservative majority at the general election was 10,774.

Exploitation fear voiced

Many workers would face "ruthless exploitation" if the proposal in the Employment Bill to end the right of unions to go to arbitration on claims for the "going rate" of wages in a particular industry was carried, Mr Douglas Grieve, general secretary of the Tobacco Workers' Union, claimed yesterday.

from West Water for the Windscale nuclear fuel processing plant.

The Germans are also interested because the British do not seem to stage noisy and riotous demonstrations against proposals connected with nuclear power but instead hold lengthy and expensive inquiries.

The BBC Open University unit will also be filming and recording parts of the inquiry to fit into a forthcoming course on public administration.

Inevitably, objectors such as local farmers and landowners and organizations like the Friends of the Lake District and the Friends of the Earth have criticized the sheer size of the procedure during which technical arguments go on between four QCs, five other barristers and six solicitors over the respective merits of taking in and treating seven million gallons from West Water or an extra 12 million gallons a day from Ennerdale Water (which the North West Water Authority wants to do to supply both Windscale and West Cumbrian industry).

Many objectors are making the case that neither lake needs to be touched and that ample water can be obtained, although

Change in age for MPs considered

By Our Political Reporter

Mr Leon Brittan, a Minister of State at the Home Office, said on Saturday that the Government was considering giving Britons living abroad the right to vote and to reduce the age at which people can become MPs to 18.

It was also considering raising the £150 deposit at elections.

Mr Brittan, who was speaking at the annual conference of the Young Conservatives at Scarborough, succeeded in winning another round in his battle over the pace of implementation.

The Government's aim was to put industrial relations on a sound legal footing, he said. That was the prize which, as a nation, we simply could not afford to lose.

"We know what the policy is and we know what the law is," he said. "It is your future that is at stake in this, it is your country that is at stake in this. Let us not make the same mistakes again. Let us get it right this time, and then we can all rejoice."

The Employment Bill, he said, would give companies an opportunity to end the power of the flying picket. It provided employers with a remedy against industrial action which was not soundly based on law.

Headlines such as he had done before, including some of his Cabinet colleagues, Mr Prior said: "What matters above all is that the much needed changes we are making will stick and will work. It is no use rushing

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Mr Prior, who is to publish a consultative document on proposals for trade union immunities this week, said they would be "black" after consultation there would be new provisions added to the Employment Bill. Later in the year the Government would publish the results of "our thorough-going examination of union immunities."

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Politicians are likely to find 'Yes, Minister' compulsive viewing

New TV series studies corridors of power

By Kenneth Gilling
MPs, as they are frequently fond of saying, do not watch much television. In fact, according to the writers of a new television comedy series, they appear on the small screen more than they actually watch it.

Nevertheless, *Yes, Minister*, the new series which begins on BBC-2 next Monday and runs initially for seven episodes, is likely to become compulsive viewing not only for politicians but for the civil servants with whom they deal.

The writers, Anthony Jay and Jonathan Lynn, have invented an entirely new ministry in which they trace, drawing on source material such as the *Crossman Diaries*, the intricate relationship between minister and permanent secretary.

Yes, Minister is described as a new kind of comedy series because it draws its humour from the upper reaches of government and because of the

care and research that have gone into the background, making the themes and relationships as accurate as possible.

Jay and Lynn sold the idea to the BBC three years ago, and the threat of an election was removed it had to be shelved.

They are hoping that the public will be given a greater insight than before into the Whitehall and Westminster corridors of power. Paul Eddington, who plays the new minister at the Department of Administrative Affairs, which exists to sort out the problems of all other departments of government, was heard to remark of one episode: "It reached such depths of cynicism it actually gave me vertigo."

Anthony Jay, who used to work on *Tonight on BBC* television, changed with politicians after the programme and this gave him an insight into their problems.

He said: "One of the things that may be illuminated is the difficulty of putting into practice and into law the policies on which you, as a politician, are elected."

Although the press has a tendency to use headlines like 'Joseph acts on...' whatever it may be, the idea of the minister acting at all can be called into question."

The writers have picked up the jargon ("We have taken on board...") and penetrated the meaning of certain phrases such as "going native," which is the idea of a minister reaching when he has become indistinguishable from his civil servants.

They also look at the role of the private secretary, who has to be an impeccable civil servant yet loyal to his minister, hoping himself to become a permanent secretary in 10 or 15 years.

Nigel Hawthorne plays the permanent secretary, Sir Humphrey Appleby, whose use

Mr Prior's warning of risk to democracy

By Our Political Reporter

Strong warnings that if the Government's industrial relations measures were not implemented democracy could be in jeopardy were given yesterday by Mr James Prior, Secretary of State for Employment.

Mr Prior, who faced demands for earlier action on trade union measures when he addressed the Young Conservatives' annual conference in Scarborough, succeeded in winning another round in his battle over the pace of implementation.

The Government's aim was to put industrial relations on a sound legal footing, he said. That was the prize which, as a nation, we simply could not afford to lose.

"We know what the policy is and we know what the law is," he said. "It is your future that is at stake in this, it is your country that is at stake in this. Let us not make the same mistakes again. Let us get it right this time, and then we can all rejoice."

The Employment Bill, he said, would give companies an opportunity to end the power of the flying picket. It provided employers with a remedy against industrial action which was not soundly based on law.

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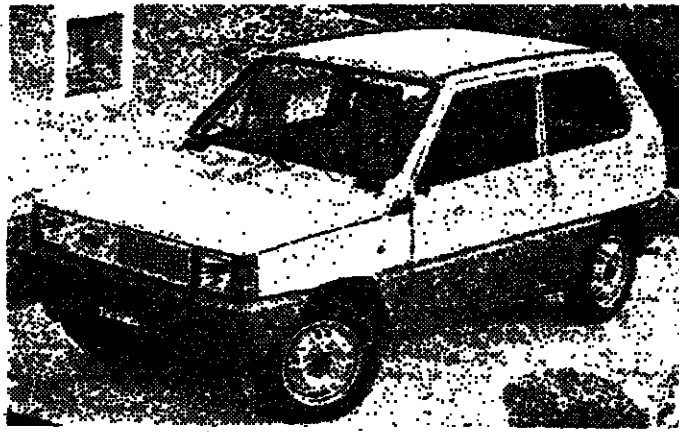
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The Fiat Panda, a versatile small car.

Spacious economy from Fiat

By Peter Waymark
Motoring Correspondent

Fiat of Italy has announced a new small car, the Panda, which will fit into the range between the 126 and 127 models and strengthen the company's presence in a part of the market where, for economy reasons, it expects important growth in the 1980s.

The Panda, designed by one of Europe's leading car stylists, Giugiaro, is a foot longer than the Fiat 126 and is claimed to offer more interior space in relation to its overall size than any other front-wheel drive model in its class.

The rear seat can be adjusted to seven positions, giving vari-

ous combinations of knee room and luggage space, a hammock for a young child or a double bed for campers. It can also be removed completely.

Another unusual feature is that the seat covers, door trims and dashboard mounted pocket can be taken out for washing. There is a large rear door for easy loading and the car is fitted with deep plastic bumpers and side strips for protection against minor knocks.

The British version of the car, which will go on sale in about a year's time, will be powered by the 903 cc engine used in the Fiat 127, giving a top speed of 87 mph and average fuel consumption in the range of 35 to 40 miles a gallon.

Prices are expected to start just below those of the 127, the cheapest version of which costs £2,849. The Panda will be made at Fiat plants in Milan, Sicily and Pamplona, Spain.

decided to follow the union instruction and remain on strike.

The possibility of a general ballot of workers throughout the private sector will be among ideas discussed at tomorrow's meeting, but it seems unlikely that companies will decide to go ahead in view of the experience so far at individual companies.

Apart from having the same difficulties as the BSC in persuading its customers, the strike is eventually resolved, several private companies could be faced with permanent closure if the strike continues.

So far industry has main-

Union tries to water down redundancy package

Continued from page 1

British Steel on Friday makes this clear.

In the preamble, the steelworkers' quarrel with the corporation's insistence that pay increases "must be financed through improved performance, and replace it with the least exact hope that this process 'will' take place.

The steelworkers refused to accept "constructive joint discussions" on streamlined manning, and reject the idea of a moratorium on pay claims during the next year. An end of February deadline for talks to reduce excess manpower also goes by the board.

In the union's document as it stands, British Steel contentious programme of collective bargaining reform is thrown out completely. The entire section of British Steel proposals on future relationships has been deleted.

This clause would have committed all unions in the industry to rationalization of the negotiating machinery, starting with the establishment of a national industrial council.

Confederation leaders want none of this, though they are prepared to talk about multi-union productivity committees at works level to negotiate on the corporation's proposals for lump-sum bonus schemes, but not until there has been payment across the board for this "national undertaking to make local agreements."

at greater cost, by tapping the fast-flowing river Derwent near Workington.

With the exception of the West Water Campaign Committee, which under the leadership of Mrs Cathv Naylor, a farmer's wife, has raised nearly £2,000 to pay for legal representation, few of the local objectors can afford to sit in every day.

They find it difficult even to digest the 65,000-word daily transcripts which are being produced by the team of American girl shorthand writers employed by British Nuclear Fuels.

Mr William Rawling, of Hollins Farm, near Ennerdale Water, who is appearing as an individual objector and as chairman of his parish council, says that the event is no longer a genuine public inquiry but now a long, technical argument between professionals which is being conducted in public.

After attending most of the first five sessions he has had to go back to work the farm which has been in his family's ownership for 350 years, taking with him a large suitcase full of documents which he hopes he may find time to read some day while awaiting his turn to put his case.

His staff does its best to

inform the local objectors by telephone of the dates and times when they might find it worthwhile to leave their farms, jobs and families to attend, to listen or to cross-examine.

An official of the Department of the Environment said: "I think everyone is conscious that this is becoming a very long and complicated affair. We are receiving criticisms, but if short cuts were taken and procedures shortened, I am sure there could be even more complaints that justice was not being done."

Perhaps the ultimate in a demonstration of British democracy at work may come on March 26, when a public meeting will have to be held by law during evening hours in the Ennerdale and Kinniside primary school.

The meeting is compulsory under Section 22 of the Commons Act, 1899, because "common land" near the shores of Ennerdale Water would be affected by one of the proposals and opportunity for discussion must be provided outside farmworkers' normal working hours on the land in question. The meeting is expected to be well attended.

Unionists reject unity call by Mr Haughey

From Our Correspondent
Belfast

Reaction in Northern Ireland yesterday, to the speech on Saturday by Mr Haughey, the Irish Prime Minister, was a predictable rejection by the various Unionist parties and an equally predictable welcome by the Social Democratic and Labour Party.

Observers point out that although Mr Haughey's references to later were surprisingly low key, they contained the demand for Irish unity which is anathema to Unionist thinking.

The Rev Ian Paisley, leader of the Democratic Unionist Party, said that the speech would only strengthen the resolve of the Ulster people. "Mr Haughey should learn quickly that neither Irish bullets nor Irish blarney will make the Ulster people surrender. It is not Northern Ireland that has failed but the Irish Republic."

Mr Peter Robinson, DUP member for East Belfast, said the speech gave justification and encouragement to the IRA, whose aims Mr Haughey shared.

"It also demonstrated his intention to make more difficult the task of the constitutional conference," Mr Robinson said. "By his words, and words alone, he condemns the subversives. Yet his pronouncements on the north can give nothing but comfort to the IRA. He is the best friend the IRA has got."

Mr Seamus Mallon, deputy leader of the SDLP, said Mr Haughey had taken a very positive and constructive line which pinpointed the only way an overall solution to the Northern Ireland problem could be found.

Mr James Kilfedder, Ulster Unionist MP for North Down, said Mr Haughey's speech gave the Government in Dublin and London to work together to find a formula that would bring permanent peace and stability to these islands (our Dublin Correspondent writes).

The situation in Northern Ireland was urgent, he said, and time was running out. Northern Ireland as an entity was artificial and had been artificially sustained. The constitutional conference, even if successful, could not provide a conclusive settlement to the problems and the need for hard work and peaceful industrial relations to solve them. Ireland was facing one of the most serious economic and financial situations it had known for a long time.

Leading article, page 13

lasting peace, would become an obtainable reality. For our part we gladly declare that we have no wish to dominate or coerce."

Mr Haughey was speaking at the Pimma Fall party's annual conference. It was his first main declaration on Northern Ireland since he replaced Mr Jack Lynch as Taoiseach last year, and it had been eagerly awaited by the 7,000 delegates.

Although an even stronger statement on unity would have been welcomed, Mr Haughey received a standing ovation that lasted well over five minutes.

His call to Britain for a declaration of its interest in encouraging unity brought the delegates to their feet halfway through his speech. Mr Haughey did not announce any new departures, but he made it obvious that he believed in plain talking on the North and that he sees partition as the root of the trouble.

He is expected to be tougher towards Britain than Mr Lynch ever was. Some observers viewed his statement that the republic spends a much needed £70m on security measures directly attributable to the northern situation as an indication that he will expect some return from Britain for such effort.

Mr Haughey said that the need for a solution in the North became increasingly urgent, and unless one could be brought forward soon the situation could well become irretrievable.

The picture was a depressing one. He condemned, however, those who put themselves above the law or took to themselves any of the functions of government. No Irish government, he said, would tolerate such a group. He saw, however, that violence and repression were inevitable in such an artificial entity.

"Should the present constitutional conference help to ensure civil rights and equality for all the people of Northern Ireland and to ensure also that security operates impartially, then so much the better."

"But the conference itself cannot provide a conclusive settlement. We must face the reality that Northern Ireland, as a political entity, has failed and that a new beginning is needed."

The speech was more in the nature of a pep talk to the nation than a policy statement. Mr Haughey constantly underlined the problems and the need for hard work and peaceful industrial relations to solve them. Ireland was facing one of the most serious economic and financial situations it had known for a long time.

Leading article, page 13

Private steel producers to discuss ways of reopening works

By Peter Hill
Industrial Editor

Leaders of Britain's independent steel producers, who are losing £10m a week because of the national steel strike, are to meet tomorrow to discuss ways of reopening their works. A further appeal to the Prime Minister is not ruled out.

Nearly 20,000 members of the Iron and Steel Trades Confederation employed by the private steel companies have been brought out by the union in support of its strike against the British Steel Corporation over a pay claim.

The strike is about to enter its eighth week. Tomorrow's meeting of the executive committee of the British Independent Steel Producers' Association (Bispa) will take place against the background of heavy picketing which the union plans to deploy to bring production to a standstill at the Norwegian-owned Manchester Steel, and at Sheerness Steel.

The Canadian-controlled Sheerness Steel is the only private company which has managed to maintain production throughout the strike and whose employees have continued to report for work in defiance of the ISTC's instructions. Picketing at the works has so far been fairly peaceful, but a confrontation is now feared.

Sheerness was the first plant of its kind to be built in Britain, and its workers enjoy higher wages than in most other works. Last week heavy picketing of the Lorho-owned Hadfields works, at Sheffield, led to

HOME NEWS

Bigger jobs quota for the disabled and stricter enforcement urged by Low Pay Unit and RNIB

By Pat Healy

Social Services Correspondent

Firm support for a strengthened quota system for disabled workers, backed by rigorous enforcement, comes today from the Low Pay Unit and the Royal National Institute for the Blind.

Both bodies want the quota system extended to government departments as well as other employers, and both reject the idea that employers not meeting the quota should be forced to pay levies into a central fund.

Their comments are made in the Manpower Services Commission, which is at present reviewing the quota system for disabled workers. The quota requires employers with more than 19 staff to employ 3 per cent registered disabled people. There are widespread fears among organizations for disabled people that the Government intends to abolish the quota system because of the high proportion of companies and public bodies not fulfilling the quota.

The Low Pay Unit points out that between 1960 and 1978 the proportion of private employers meeting the quota fell from 61.8 to 36.3 per cent, but only 10 per cent of public bodies have been prosecuted since the system was introduced in 1944.

Government departments, which are not legally subject to the quota but accept a moral duty to meet it, also fail to fulfil the quota, except in the comparatively small Stationery Office; as do most local authorities, area health authorities,

nationalized industries and utilities. "This is a disgraceful record," Mr Frank Field, Labour MP for Birkenhead, who is a former director of the Low Pay Unit, writes in its evidence to the commission.

It would be difficult to find any other area of government responsibility where public bodies are so clearly and openly failing to fulfil their legal duties and in which the duties which government has placed on the public sector are being so blatantly flouted.

The cost of government inaction is that disabled workers carry more than their fair share of long-term unemployment, Mr Field writes. The unemployment rate for the disabled is more than twice the national average, and 60 per cent of the registered unemployed disabled have been jobless for more than a year, compared with just under a quarter of all the unemployed.

The Low Pay Unit suggests that the Government should first put its house in order by mounting a campaign to ensure that each government department fulfils the 3 per cent quota within two years. If it then goes on the offensive against private and public employers who fail to fulfil the quota, both by persuasion through grants and tax relief and by stronger enforcement policies.

"The time has surely come for government to pluck up the courage and protect the plight of unemployed disabled wor-

kers in a more positive way," Mr Field writes.

The quota system should be changed to increase with the size of companies, but excluding the smallest employers, he suggests. Companies with fewer than 50 employees should not be subject to the quota, which would cut administrative costs significantly.

The Royal National Institute for the Blind, on the other hand, believes the quota should be retained for all employers with more than 19 workers, but with some changes to set realistic targets.

Employers should be allowed to count disabled workers who are not registered but would qualify to be, but quota levels should be reviewed regionally and not allowed to fall below 3 per cent.

Mr Eric Boulter, director-general of the institute, says in his evidence to the commission that the quota scheme has been one of the most important aspects of the supportive legislation that has allowed the blind to take up a wider range of jobs since 1944.

But more rigorous enforcement is needed, including the introduction of anti-discrimination legislation for disabled people. All employers should be required to publish annually details of their level of quota compliance.

"These mandatory requirements should apply to all employers in the public sector, including central government departments," he says.

Crash cause identified: The derailment of a London to Manchester express at Bushey, Hertfordshire, on Saturday night was caused by the failure of a weld between two rails made on site last autumn, British Rail said last night. "Similar welds in the immediate area have been checked and there is no evidence to suggest this was other than an isolated occurrence," British Rail said. "However, similar welds at other locations are being thoroughly checked." The reason so few people were injured

only one was seriously hurt of the 170 passengers in the train—was because of the strength of the modern carriages "which remained basically intact despite the seriousness of the derailment". There will be an internal inquiry into the crash and there is likely to be a public inquiry by the Department of Transport. The 8.25 pm London to Manchester train City of Manchester, was passing through Bushey station at 9 pm when five of its 11 coaches left the track. The locomotive remained upright. The photograph shows one of the overturned coaches.

The coaches careered across the lines, some hitting the overhead gantry carrying electric cables. Fourteen other passengers were kept in hospital overnight. Only one, a woman, was hurt seriously. About 40 other passengers were treated by ambulance men. Services are expected to be running today, but there will be delays.

Photograph by Alan Davidson

British race team deal by Mr Mark Thatcher

Mr Mark Thatcher, the Prime Minister's son, has dropped plans to race cars in Japan and signed for a British team, he announced in a statement yesterday.

He said he had rejected a £25,000 sponsorship offer by Mr Paul Raymond, the impresario and publisher of *Men Only*.

The statement said: "I can confirm I have now signed to drive for an all-British team based at Brands Hatch. I will not now be driving in Japan as previously planned."

Mr Thatcher, aged 26, did not say what has happened to his £10,000 sponsorship with Kanebo, a Japanese clothes company.

Under that deal he would have gone to Japan for three races to promote the company's products. He has already appeared in pictures modelling its synthetic leather coats.

The deal prompted criticism by MPs, employers and unions in the British textile industry. Mr Thatcher, a management consultant, said he would honour the contract and threatened to leave Britain rather than give up racing.

Man injured by own car

Mr Paul Snell, a sailor based at Faslane, Clyde, was knocked down by his car on Saturday night just after he had visited Steward Street police station, Glasgow, to report it stolen. He suffered a broken hip and an injured hand.

Iranians want visas to ease entry to Britain

By Frances Gibb

The Iranian Embassy has asked the Government to introduce a visa system for Iranians coming to Britain because a number are being turned away by immigration officials who are not satisfied that they are bona fide visitors.

The embassy estimates that 10 per cent of about 100 Iranians arriving each day at Heathrow airport are turned away. Most of the Iranians are visiting Britain for medical treatment, business or simply as tourists, the embassy says.

"The immigration officials are not satisfied that they do not want to stay in Britain and are sending them straight back to Iran, usually on the very next plane," the Press Attaché at the embassy said. "They are not even allowed to go instead to France or Italy. It is a patient person who after seven hours' flying can put up with another seven hours."

The embassy was not seeking to prevent Iranians leaving their country, it said. It was simply a matter of human rights and ensuring that they were not subjected to what the attaché described as an unfriendly attitude.

Dr A. Afrouz, the Chargé d'Affaires, has put the case to the Foreign Office in the past few days that a visa system would greatly benefit Iranians coming to Britain. They could obtain documents in Iran confirming the reason for their visit, and entry at this end would cease to be difficult, he said.

"Of course, there are some Iranians who want to settle in Britain," the Press Attaché said. "But among them are many people who need medical aid, are students or tourists, or even are coming to do some shopping, and have acceptable documents."

The immigration officials have a difficult job and the embassy accepted that they had to ensure a visitor's bona fides. But often rich Iranians wanting to settle in Britain slipped through, while students, or those seeking medical care, were turned away.

The Government is considering the request, but no decision has been taken. In a recent parliamentary answer, Mr William Whitelaw, the Home Secretary, said that the Government was not intending to introduce a visa system at that time, but proposed to keep the possibility under close review.

Home Office officials are doubtful, however, of the practicability of bringing in a visa system. "We have a visa abolition agreement with Iran, brought in some years ago, and to reintroduce the system in the present circumstances would involve a lot of work at a time when the embassy staff in Iran has been cut from 46 to 12," an official said.

There had been a massive exodus from Iran in the past year, with as many as 1,000 seeking entry a day at one time, and there had been some concern that not all of them could support themselves in Britain. "Inevitably certain Iranians were refused entry, but this applies equally to other nationals who failed to meet the requirements."

Recent parliamentary answers show that last August, the peak month, 34,000 Iranians came to Britain, but that was considerably less than for the same period the year before, when 40,300 sought entry. The drop applies throughout the year.

In 1978, 237,000 Iranians came to Britain, of whom nearly 200,000 came through Heathrow, but the numbers for last year look like being down by 50,000 to 65,000.

Sealink officers stop 7 ships in lightning action

By a Staff Reporter

Officers on British Sealink ships based at Harwich yesterday began what their spokesman called a series of "lightning disputes", which stopped seven out of nine ships.

The 180 officers, members of the Merchant Navy and Airline Officers' Association, put forward proposals last April aimed at bringing their ranking and promotion system into line with those of other Sealink ships. But despite numerous meetings, no reply had been received, the spokesman said.

The officers felt the situation was intolerable and were determined to rectify it. Attendance had hardened since the recent National Maritime Board pay settlement, which gave ratings an additional 5 per cent over officers. "Lightning dispute" would continue today, the spokesman said, and thereafter possibly on a sporadic basis.

Blood service pay dispute halts surgery

From Our Correspondent

Grimsby

A dispute over pay between the Trent Regional Health Authority and employees in the blood transfusion service has halted all main surgery, except emergencies, in south Humberside and Lincolnshire.

Mr Brian Noakes, health administrator in Grimsby, said that 200 patients due to be admitted to hospital this week will have their operations postponed. The employees are members of the Confederation of Health Service Employees and have decided to ban overtime in support of a five-year-old dispute involving the backdating of a pay claim.

It is thought that their action will reduce blood supplies to hospitals in the region by about a quarter and stop almost all evening and weekend donor sessions.

Two counties plan to save archaeological sites

From Our Correspondent

Grasmere

Action to rescue archaeological sites for excavation before development destroys them has begun in earnest in Lancashire and Cumbria.

A conference at Lancaster University at the weekend was told that a Cumbria and Lancashire archaeological unit had been set up jointly by the university and the Department of the Environment to carry out excavations where sites were threatened.

Dr Roger Leech, director of the unit, said that their work would include a systematic map-ping of aerial photographs that could help them in their work. That would be carried out by

Mr Graham Lee, using facilities at Lancaster University. In Cumbria they were particularly interested in rural sites such as those likely to be ploughed in Eden Valley.

They were concerned with building developments and with the line of a new gas pipeline in South Cumbria, where they hoped to do work.

In Lancashire their objectives were mainly building sites, afforestation, and sites along the A59 where it crossed the moorlands in south west Lancashire.

Dr Leech said: "We have had a lot of help from the county archaeologists for Lancashire and Cumbria, as well as from other archaeologists."

"THEY WANT US TO KNOCK £500 OFF FOR LACK OF INSULATION."

A house that wastes money on unnecessary heat could soon become more of a liability than an asset.

How long will it be before the absence of insulation becomes a very undesirable feature?

How long before the phrase '...lack of sufficient insulation...' becomes a telling comment in surveyors' reports?

If you've decided against insulation because you plan to move out in a few years' time, that phrase could appear in a surveyor's report on your house.

And if your future buyer has a choice of similar properties, your home's lack of insulation might be all the persuasion he needs to buy a place that is cheaper to heat.

Meanwhile, as fuel costs rise, you're missing out on the immediate benefits of insulation yourself.

You'll find all you need to know about the advantages of loft, tank and cavity wall insulation, double glazing, draught proofing and central heating controls in our free booklet 'Make the most of your heating'.

Why not post the coupon below for your copy?

We have to admit, we have no crystal ball. We can't guarantee that a fully insulated house will be easier to sell.

But with rising fuel prices, the money to be saved on heating costs should be enough to give you second thoughts about your lack of insulation.

And with a cosier home, a more economical home, who knows, you might even have second thoughts about moving.

MAKE THE MOST OF ENERGY

To: Dept. of Energy, Make the most of your heating, P.O. Box 702, London SW20 8SZ. Please send me a free copy of your booklet.

Name _____

Address _____

DEPARTMENT OF ENERGY

T17

HOME NEWS

Inquiry on test bores in granite seen as 'thin end of nuclear wedge'

From Ronald Faux

Objectors to the proposed test bores into the granite of Mulhwarth Hill, Strathclyde, will try to raise the broader issues of nuclear waste disposal when a public inquiry opens in Ayr tomorrow. The objectors regard the inquiry as a crucial test case, the thin end of a nuclear wedge.

The inquiry, which is an application by the Atomic Energy Authority to make research bores into the hill to determine the properties of hard crystalline granite. The research is part of a wider study and is supported by the EEC.

Among the objectors are the Atomic Energy (SCRAM), the Campaign Opposing Nuclear Dumping (COND), and Friends of the Earth. Both Kyle and Carrick District Council, which refused planning permission for the test bores, and Cumnock and Doon Valley District Council, will be represented by a Queen's Counsel.

What is called a "People's planning commission" organised by pressure groups, will be held in Ayr at the same time as the official inquiry. "This will go fully into the case against allowing the test bores because of the wider implications," an objector said.

Objectors are not optimistic that the terms of reference for the official inquiry will allow discussion beyond the specific issue of test boring, and the siting of several portable caravans.

The issue dates back to November 1976, when the Kyle and Carrick Council received a letter from the Atomic Energy Authority at Harwell, outlining the proposals.

Bridging the gap, page 12

Visitors 'no threat to rural life'

By Our Planning Reporter

Local authorities should be doing far more to ensure public access to the countryside, an article in *Rucksack*, the journal of the Ramblers' Association, suggests.

The author, Marion Shoard, a research fellow at the Centre for Environmental Studies, observes that the potential in securing access agreements over woodland, lakeside and riverbank has been virtually ignored.

The definition of "open country" to which such access agreements can be made was extended in the Countryside Act, 1968, to include those three types of land, she points out. But the few agreements that exist have concerned mainly open country as defined in the National Parks Act, 1949, namely mountain, moor, heath, down, cliff and foreshore.

Outside the national parks, local authorities have been slow to try to protect the countryside and rural interests from townspeople. But the view prevalent in country halls that visitors from the towns pose a serious threat to landscape, wildlife and farming has no basis in reality.

The main reason why access is denied to lower streets of the countryside is that they are used for pheasant shooting.

There is no evidence that disturbance by walkers, picnickers or children playing would damage a pheasant shoot, she claims.

Authorities need to be made aware of how much can be done to enhance citizens' lives at insignificant cost to public expenditure.

If the people of Britain are to be able to take advantage of the cheap pleasures the countryside can offer, access agreements must be accompanied by the provision of new Sunday bus services, and the conservation of marginal land.

Complaint about 'false and offensive' cartoon upheld

A *Daily Mail* cartoon could be interpreted as falsely and offensively suggesting that the Anti-Nazi League killed eight policemen, the Press Council says.

In an adjudication published today the council upholds a complaint by the National Union of Teachers branch at Beaufoy School, Loddard Street, London, SE11, that the *Daily Mail* published a tasteless and offensive cartoon which was a gross distortion of the Southall demonstration in that it suggested Anti-Nazi League demonstrators were killers of policemen.

On the day it gave eyewitness accounts of the demonstration at Southall at which the teacher, Blair Peach, died, the *Daily Mail* carried a Mac cartoon on its daily page showing Anti-Nazi League members in a car decorated along its side with eight silhouette heads of helmeted policemen. There was no caption.

Mr Blaine Stothard, the NUT representative at Beaufoy School, complained to the Press Council on behalf of 27 members that the representations were in the style of "killing" on warplanes, suggesting the car's occupants had killed or maimed eight policemen. The cartoon grossly misrepresented the truth of the Southall demonstration.

Mr Stothard complained to the editor saying the Southall death was not suffered by the police but inflicted by them. The cartoon was in poor taste and offensive.

Ministry ban on bomb manoeuvre

The Ministry of Defence has

banned a particular bombing manoeuvre at the Rosehearty range, near Fraserburgh, Grampian, after a practice bomb was dropped on a farm nearby.

In a letter to Mr Albert McQuarrie, Conservative MP for Aberdeenshire, East, Parliamentary Under-Secretary of State for Defence, Mr Geoffrey Pattie said: "The incident is of considerable concern to me."

"As a result of the investigation, the Ministry of Defence has issued instructions that 'toss-bombing' manoeuvres are to cease at Rosehearty unless and until additional safeguards can be introduced to preclude the possibility of any bomb ever again falling outside the range safety area."

"Toss-bombing" is a technique in which an aircraft runs in at low level and suddenly climbs, releasing a bomb. The aircraft's impetus "tosses" the bomb on the target and the aircraft is heading away as it explodes.

Mr Pattie said that the bomb dropped in the field, released from a US Air Force F-111, was basically inert, with only a small pyrotechnic charge to create a flash and smoke.

Inquiry sought on soldier's death

Mr Michael Morris, Conservative MP for Northampton, South, is to ask Mr. Barrie Hyslop, Under Secretary of State for Defence, today for a formal report on the death of Private James Dinkin, aged 18, a drummer.

He was found dead at the Royal Pioneer Corps Training Centre, Northampton, after complaining to his parents and officers that he was being bullied by other soldiers.

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WEST EUROPE

Fierce attack likely on EEC price package for farmers

From Michael Hornsby

Brussels, Feb 17.

The European Commission proposals for curbing agricultural expenditure will come under fierce attack tomorrow from EEC ministers of agriculture, and Mr Peter Walker for Britain, will be as critical as any of his colleagues, if for somewhat different reasons.

Reinforced by a firmly worded letter sent over the weekend to the Commission by Lord Carrington, the Foreign Secretary, Mr Walker will also renew demands for an interim limitation from the European Court of Justice ordering the French to end their prohibitive levies on imports of British lamb.

It is within the power of Mr Finn Olav Gundelach, the EEC Commissioner for Agriculture, to seek an injunction. He has been trying for months to find some legal way of protecting French sheep farmers against the levies on imports of British lamb.

Mr Walker will argue that he sees no case for any price increase at all for products in surplus such as milk, sugar, beef, cereals or wine.

Fortunes not for public eye in Paris

From Charles Hargrove

Paris, Feb 17.

The tradition of secrecy of the French Government and civil service is deep rooted. It has survived all the different regimes this country has known since 1789.

After the scandals last year of Emperor Bokassa's gifts of diamonds to French personalities, and of the suicide of M. Robert Boulin, the Minister of Labour, the news magazine *Le Point* decided to conduct an investigation into the incomes and assets of French politicians.

A detailed questionnaire was sent out to a representative cross-section of 89 persons calling for particulars of their 1978 incomes and present capital. Only 14 replies were received.

The investigation provoked controversy and indignation among some of those concerned. In this week's issue the magazine points out the difficulties it experienced in collecting information which is "commonplace in many countries but still taboo in France."

A minister entertained at luncheon by *Le Point* accused it of "national degradation" and "described the questionnaire as 'ignominious'."

The publishers of the magazine had not been optimistic about the success of their operation. Even so, they were surprised not to receive a single reply from any of the 42 members of the Government.

The reason, the magazine says, is simple: the Prime Minister forbade any of them to do so.

M. Georges Marchais, the Communist leader, saw what political capital could be made out of the questionnaire and made a public confession of possessing "no gold or precious stones, no yacht, no private aircraft, no collector's items."

No questionnaire was sent to President Giscard d'Estaing, *Le Point* explaining that before sounding out the President, it approached a senior member of his staff who replied that he would certainly not reply. But, the magazine notes, the essential facts had all been published by the satirical weekly, *Le Canard Enchaîné*, in June 1978, when it reproduced his tax return, showing: salary and allowances of Frs 342,098 (£86,500); dividends of Frs 181,962 (£43,500); and income from property of Frs 303,806 (£73,400).

If the Government ignored the questionnaire, the remaining 47 politicians approached were hardly more enthusiastic. Only one, it reproduced, replied; but the magazine heard from eight Socialists out of 10 and from two Gaullists, one Giscardian, and one left wing radical.

Italian Christian Democrats are united in indecision

From Peter Nichols

Rome, Feb 17.

In a dispiriting performance, the ruling Christian Democrats reached the only decision so far after three days of their national congress when they resolved to postpone until tomorrow a debate on how the party should elect its secretary.

To talk of bleak prospects is an understatement. A delegate this afternoon complained bitterly that of the 1,300 or so delegates, only 20 had come to hear him, while the hall filled when the famous were scheduled to speak.

That famous names have so far been shy in actually coming forward is due to disagreement on whether the party's secretary should continue to be elected by congress or should be chosen within the national council.

The two issues facing the congress are this: one and the policy to be announced at the conclusion of the gathering, which now looks more like Wednesday than Tuesday.

So far, only substantial contribution to the discussions has been the report of Signor Benigno Zaccagnini, the outgoing secretary.

His report follows in outlook the views he put forward at the 1976 congress on the attempts he felt should be made to

has no choice but to seek court action.

Mr Gundelach's price package for 1980-81 envisages an average rise of 2.4 per cent in the minimum support prices guaranteed to the EEC's eight million farmers coupled with related measures to curb overproduction of milk, sugar and beef.

The commission calculates that if its proposals were adopted and the scheduled start of the marketing year on April 1 they would keep agricultural spending in 1980 very slightly below what was spent last year. Each additional percentage point on the price rise would increase the bill by up to £90m.

EEC farmers have demanded a price rise of nearly 8 per cent. M. Pierre Madaingier, the French minister, has already said that he would consider a 7 per cent price rise as reasonable.

Mr Walker will argue that he sees no case for any price increase at all for products in surplus such as milk, sugar, beef, cereals or wine.

Carnival day on Rome's underground

From Our Own Correspondent

Rome, Feb 17.

Some 512,000 people yesterday tried the new experience for Romans of travelling on the city's new underground, the first line of which, running from north to south, was officially opened to the public.

The atmosphere of a carnival Saturday added to the festive nature of the event. The arrival of the trains was regularly cheered.

Many people took advantage of the liberal arrangement by which every ticket costs the same, and the destination by going to and fro between two of Rome's historic centres, the film studios at Cinecittà and the Via Ottaviano stop close to the Vatican.

One man accidentally fell on the rails but was saved by the safety device, a descent automatic ticket machines were way under the strain and required repair. Escalators were inclined to jerk to a stop.

An elderly man had his wallet stolen, thus entering history as the first passenger on the Rome underground to have his pocket picked.

The real test will come tomorrow when the underground will have to deal with a normal working day.

Detente must be saved, says Signor Berlinguer

Florence, Feb 17.—About

200,000 communists from all parts of Italy today heard Signor Enrico Berlinguer, the Italian Communist Party leader, repeat his criticism of the United States and the Soviet Union.

At a rally organized by the Communist Party as part of a campaign to urge Europeans to defend detente Signor Berlinguer said the Soviet military intervention in Afghanistan was a serious blow to the policy of detente.

But he also attacked the United States for its support of military regimes in Latin America and other parts of the world and its proposal to boycott the Olympic Games in Moscow which he called shameful.—Reuter.

Blast shatters Swedish plant

Karlskoga, Sweden, Feb 17.—

Windows were shattered in a two-mile radius early today when an explosion ripped through a nitroglycerine factory here.

Workers holding several tons of acid were stored at the factory, owned by the Nobel company, but although the damage was extensive no one was injured.—Agence France-Press.

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OVERSEAS

Final polls put Liberals ahead in Canada

From Patrick Brogan

Montreal, Feb 17.

The Canadian Liberal Party is the clear favourite to win tomorrow's general election. The last Gallup poll, published yesterday gives the Liberals 48 per cent, the Conservatives 48 per cent, and the New Democratic Party 23 per cent. Such a crack vote would lead M. Pierre Trudeau, the former Prime Minister, a clear majority in Parliament.

Another poll broadcast by a television company yesterday, however, gave the Liberals a lead of 10 per cent only, which might not be enough to win them the election.

The election was called after the Conservative Government of Mr Joe Clark was defeated over its budget in December. The last elections were in May, 1979 when the Conservatives became the largest party in Parliament, with 185 seats out of 282, and Mr Clark formed a minority Government replacing Mr Trudeau who had been Prime Minister for 11 years.

The result of the election will be decided in a few days. A feature of Canadian politics is the continued difference in party support between the various regions. The Liberals have a stronghold in Quebec with 57 seats out of 75 but only six out of 80 seats in the prairies and the west.

Conservative support is more evenly spread apart from the glaring deficiency in Quebec, where they won two seats only in 1979. It is possible that they will lose one of those tomorrow and that the Liberals will consign the Social Credit Party there to oblivion.

The two-month campaign has consisted of a spirited attempt by Mr Clark and his followers to recover from the loss of support that had occurred during their seven months in office. Conversely, Mr Trudeau and the Liberals were concerned to keep the commanding lead they enjoyed when the campaign opened. It seems that they have succeeded.

Mr Clark's parliamentary colleagues may demand a sacrifice of the leadership and he may lose the leadership, but today his popularity in the party at large seems greater than ever before.

For Mr Trudeau, he had announced his retirement in November, and the party was to choose a new leader this spring. Then came the defeat of the Government. Mr Trudeau was easily persuaded to retain the leadership.

There has been surprisingly little discussion during the campaign of the problem of relations between Quebec and the rest of the country, but on balance it is probable that federalism in Quebec would be strengthened by Mr Trudeau's victory.

Mr Trudeau's popularity has recovered considerably from last May when the Liberals were defeated largely because of his unpopularity. Mr Clark is more highly esteemed than he was at the beginning of the campaign, but neither leader can be said to have a real national popularity. The most popular party leader, undoubtedly is Mr Ed Broadbent of the New Democratic Party which hopes to win at least the 31 seats it held in the Parliament of 1972.

Bishop Muzorewa takes election campaign to Mugabe stronghold

From Nicholas Ashford

Buchura, Rhodesia, Feb 17.

The twin-engined Beechcraft that brought Bishop Abel Muzorewa to this remote part of the Bellingwe triangle of land had the words "Free Enterprise" painted on its nose.

It was an appropriate message, as the leader of the United African National Council (UANC) is not only regarded as the chief defender among the main black political leaders of the country's capitalist system but his lavish election campaign has been made possible by courtesy of free enterprise interests in Rhodesia, South Africa and elsewhere.

In addition to the aircraft Bishop Muzorewa has had the exclusive use of two helicopters (one of which has been in the air for days), countless limousines and a permanent suite in Salisbury's leading international hotel for use as a party office. Wherever he goes his supporters distribute UANC hats, sun visors and shirts as well as cool drinks and sometimes food as well.

This was Bishop Muzorewa's first visit to Bellingwe, a sprawling African reserve 230 miles south of Salisbury, and there was an impressive reception committee to greet him. It included Mr Nryn Evans, the manager of the local iron mine, which employs most of

the 2,000 people living in Buchura, a Special Branch policeman, a pilot strapped to his hip, Mr Chris Hanson-Smith, the British election supervisor for Bellingwe, and a load of heavily armed police.

Bishop Muzorewa was accompanied by his own bodyguards, who alighted first and took up defensive positions around the aircraft. They included a number of white policemen in African clothes and two Africans, both of whom carried sub-machine-guns.

After he stepped out of the aircraft the UANC leader climbed straight into the back of an armoured vehicle which took him in a convoy the two miles from the airstrip to the village where a crowd of about 300 had gathered to hear him speak. Another armoured vehicle carrying police armed with rifles and Bren guns brought up the rear of the convoy.

When the bishop arrived at the meeting the police took up positions in the immediate vicinity while his two black bodyguards maintained their armed vigil around the makeshift rostrum where Bishop Muzorewa stood.

Bishop Muzorewa's supporters maintained that such tight security arrangements were necessary because the Bishop's

health. The eight-man British delegation includes five members of the Royal Society.

At what was described as "a somewhat acrimonious meeting" two weeks ago Lord Todd told Mr Timothy Sainsbury, Conservative MP for Hove, that Professor John Charap, Professor of Theoretical Physics at Queen Mary College, London, that the Hamburg forum was not an appropriate place to raise individual cases of persecuted colleagues.

Professor Charap says: "His manner was brusque and he was unwilling to accept the material we had ready for him about Dr Orlov and other imprisoned scientists. He gave us the impression that, in his opinion, the Royal Society was above the battle. We were very disappointed by his reaction to our representations."

Other members of the British team, who will sit as a national delegation in Hamburg with a Foreign Office adviser on aspects of the Helsinki agreement, have complained about being "besieged" with requests to intervene on behalf of individuals.

Sir Iwan Maddock, a leading expert in atomic weapons development and deputy leader of the delegation, said yesterday: "We are going as scientists, we are going to talk science and keep to science. We are neither competent nor suitable people to get into all the other things. Science is a subject in itself. The rights and wrongs of these individual cases are much too complicated for me to understand. Human rights is a quite separate basket from the one that concerns us. We shouldn't mix the scientific basket with the problems of the other one. It only takes one speech and the whole atmosphere can be poisoned."

Professor Charap believes that these views are untypical of scientists in Britain. "We have collected a large number of signatures from scientists on all levels in support of Sakharov, Orlov and others," he says.

It is very easy to say that Lord Todd and his team have decided not to support us. I am told, however, that the American and French delegates are going to raise the matter openly, and I am sure that this will have an effect."

US approves experts picked to inquire into Shah's regime

From David Cross

Washington, Feb 17.

The United Nations announced today that Dr Kurt Waldheim, its Secretary General, had completed the selection of members for an international commission of inquiry to investigate Iranian complaints against the regime of the deposed Shah.

A United Nations spokesman said that the United States had already approved the names of those chosen to sit on the commission but that a reply was still awaited from the Iranian authorities.

Details would be announced when Tehran gave its go-ahead, probably within the next 24 hours or so.

The establishment of the commission is the first step towards resolving the 15-week-long seizure of the American Embassy in Tehran. The commission is expected to consist of five senior jurists and diplomats who would travel to Tehran to conduct their inquiries. The investigation would probably take about two weeks to complete and it seems unlikely that the 50 American hostages in the embassy would be free to return to the United States before then.

Both President Carter and the Iranian authorities now acknowledge that the setting up of the commission is a prerequisite for the release of the hostages. Mr Carter, who originally wanted the setting up of the inquiry to coincide with the release of the hostages, said last week that "an appropriate commission with a carefully defined purpose would be a step towards resolution of this crisis."

The President has, however, again declined to accept another apparent Iranian condition for the release of the hostages, namely an acknowledgment that past American support for

the Shah was misguided. In an interview with newspaper editors, details of which were published here yesterday, Mr Carter said he recognized "misunderstandings" with Iran, but he offered no apologies for past American actions—in its relationship with the Shah.

French visit: Mr Sadeg Oubzadeh, the Iranian Foreign Minister, on a four-day official visit to France, said that the fate of the hostages was in the hands of the American Government, which must first own its "crimes" under the Shah's regime. The setting up of an international commission of inquiry was only a first step towards the liberation of the American diplomats, he said (Charles Hargrove writes from Paris).

Mr Oubzadeh met M. Jean Francoeur-Proust, the French Foreign Minister, yesterday for nearly two hours. He was left in no doubt as to the French position on the issue. The continued detention of the hostages, he was told, was "an intolerable violation of the fundamental rules of international law."

Mr Francoeur-Proust said that the commission was a prerequisite for the release of the hostages. He said that the Iranian Government must be prepared to listen to the grievances of the Iranian people on the basis of documents provided by the Government, and the evidence of victims of the Shah's regime. It would also have to bring to light all foreign intervention in Iran at that time.

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Mrs Gandhi to dissolve nine state governments

From Our Own Correspondent

Delhi, Feb 17.

Mrs Indira Gandhi the Indian Prime Minister today decided to extend her power today decided to dissolve the state legislative assemblies in nine states where the present governments do not belong to her Congress Party.

Among the nine are important states like Uttar Pradesh, Punjab and Bihar, in the north, Gujarat and Maharashtra, in the centre, and Tamil Nadu in the south. State elections will now have to be held.

The decision was taken after an emergency Cabinet meeting here tonight. Mrs Gandhi and her Home Minister had for

OVERSEAS

'Torture' by Israelis led to man's paralysis

Tel Aviv, Feb 17.—A resident of Nablus on the West Bank is said to have become a mental wreck as a result of torture in an Israeli prison.

Mr Bassam al-Shaka, the Mayor of Nablus, said that Mr Nadar Ya'afouri, aged 23, had been released from two years' detention in a most serious condition. "He is paralysed and is incapable of performing any action on his own. He does not react to anything."

His condition is the result of torture undergone while in Ramle prison, he said.

Mr Shaka said Mr Ya'afouri had been detained without any charges being made against him, and without trial.

"The military authorities refused to say why he had been arrested, despite all our appeals," he said.

He appealed to the Ministry of Defence and Army officers to release him a year ago, when it was still possible to save him. But I got no reply."

The Haaretz newspaper said that the case of Mr Ya'afouri was among the subjects discussed by the mayor in a conversation with Major-General Danny Matt, military coordinator for the occupied West Bank as a result of which the defence establishment had planned to expel Mr Shaka.

The decision was reversed after a public outcry and an appeal to the Supreme Court. General Matt had been quoted as saying that Mr Shaka had justified an Arab terrorist attack on a bus which had resulted in the death of some 60 passengers.

The Army declined to comment on the reports of Mr Ya'afouri's condition, but General Matt said a statement would be issued later.—Reuter.

Six-day artillery battle flattens Lebanon village and up to 60 die

Kfour al-Aarbi, Lebanon, Feb 17.—About 60 inhabitants of a north Lebanese village were killed in a six-day artillery barrage which pulverized their homes, residents said today.

Refugees from the right-wing Phalangist-controlled village of Qnat said corpses lay trapped under flattened houses and in open ground. The village is totally destroyed. Sinking bodies are everywhere, one resident said, after bringing his pregnant wife and seven children out of Qnat in driving snow early this morning.

There was no independent confirmation of the casualty figures suffered in artillery battles this week between Phalangist militiamen and Syrian forces backing right-wing supporters of the former President, Mr Suleiman Franjeh.

The Syrians renewed heavy shelling of Qnat and surrounding villages this morning and correspondents saw Phalangist reinforcements being brought up to the battle zone.

Thousands of villagers have fled from the battles involving fighting right-wing militias and power supplies. Areas are without food and power.

Phalangist fighters resting in Kfour al-Aarbi after six days in positions round Qnat, three miles away, also estimated that about 60 villagers had died in the shelling which started on Tuesday. They put their own losses at four compared with dozens on the Syrian side, though Phalangist headquarters in Beirut said 10 militiamen were killed and 15 wounded.

The Syrians lost 14 men in one day alone when they tried to storm Qnat on Wednesday. They thought the massive bombardment would make it easy to take the place over, but we

fought them off," a local Phalangist militia commander said. The fighters said that at least a dozen Syrian corpses lay rotting on the banks of a river which runs near Qnat.

The Phalangists took correspondents up to the battle zone under cover of darkness last night. But a planned inspection of Qnat was cancelled because militiamen said the situation there was too dangerous.

The only statement on the fighting so far by the all-Syrian Arab Deterrent Force (ADF) was issued two days ago. It said the Syrians had cut off Qnat and were combing the village in search of militiamen who had ambushed an ADF patrol on Wednesday, killing one soldier.

Mr Sulim al-Hoss, the Prime Minister, today appealed for a ceasefire after meeting ADF officers and security officials. Last night, President Elias Sarkis announced an initiative intended to achieve national truce in Lebanon, which has been split by civil war and violence for five years.

Inquiry reopened: A Rome prosecutor decided today to reopen an inquiry into the disappearance of the leader of the Lebanese Shia Muslims, Imam Musa Sadr, on a journey from Tripoli to Rome 17 months ago. Italian justice sources said the Libyan Embassy in Rome had provided fresh evidence.

They said the Libyan authorities believed that the Shah's secret service, Savak, may have abducted the Imam after his arrival in Italy. They said the Imam was a close friend of Ayatollah Khomeini, who was then in exile in Paris, and supported the Ayatollah's struggle to overthrow the Shah.—Reuter.

Leading article, page 13

Hindus take religious view of Sun eclipse

From Richard Wigg, Kurukshetra, Feb 17

Scientists from India and the United States were carrying out their observations as the Moon's shadow swept across southern India during yesterday's total eclipse of the Sun and the well-to-do citizens of Delhi, superstitious for all their western veneer, carefully shut themselves indoors. They found it safer to watch the eclipse on television.

But the happiest people were the Hindu pilgrims who flocked to the ancient mass bathing tanks at Kurukshetra for a ritual dip. It did not matter to them that the eclipse here was only partial.

To orthodox Hindus a solar eclipse is both an awesome occasion and a unique opportunity. There could, they believe, be some terrible natural calamity, but if they say their prayers, give alms to the poor, and then take a dip on the very site where Lord Krishna preached the Sermon of the Gita, everything will be more beneficial for personal salvation than any one of these things performed on less auspicious occasions.

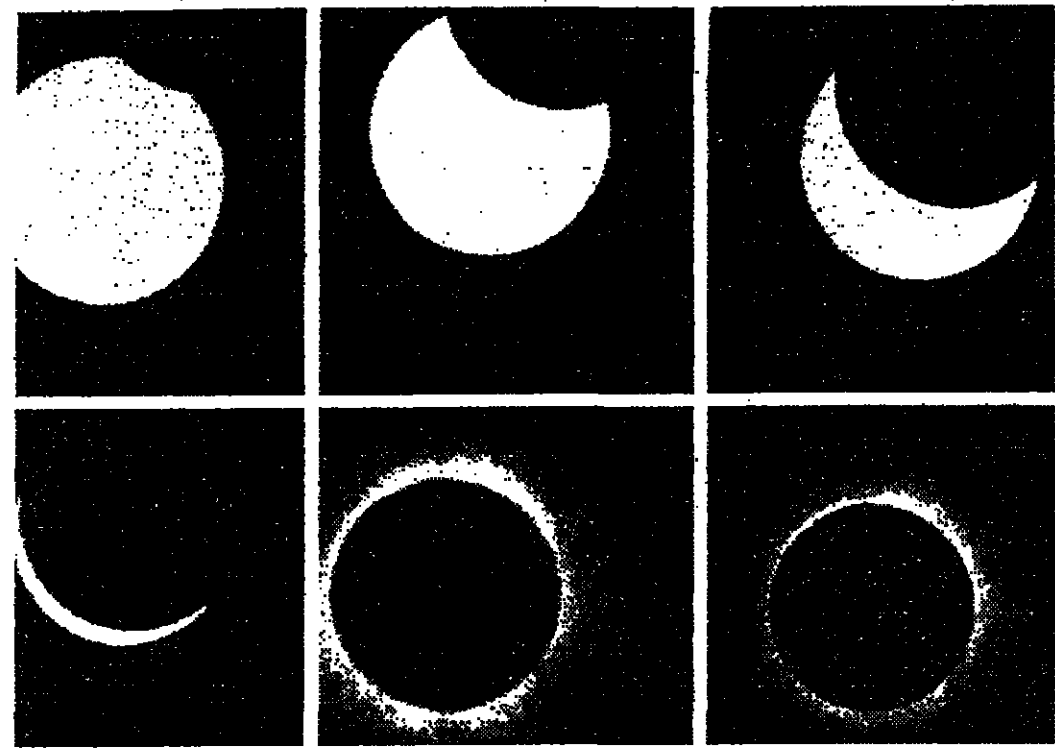
The Haryana State Government boasts it spent more than £250,000 to get everything ready for the pilgrims.

On the broad north Indian flat countryside, agricultural land is in the distance, but the vast site is dominated by a profusion of temples.

Everything faces on to a submerged tank and bathing ghats, a sheer of water almost three quarters of a mile long.

Led by one of the shankaracharyas, the topmost Hindu "holy" men, the faithful, after jamming the temples, have to make their way from a smaller ancient tank to the modernized main one. The two dips assure the benefits of the waters from the entire sacred region.

The pilgrims pass a huge row of emaciated beggars, cripples, and naked sadhus. There are the blind, those on crutches brandishing filthy bandages, those so deformed they have to



The total eclipse of the Sun as viewed on Saturday from the Kenyan town of Voi.

be wheeled on small wooden trolleys, a palsied or shrivelled limb high in the air, or figures lying immobile, their distorted bodies hideously painted in bright colours so as to shock the onlookers without the need of any appealing words. There are astrologers and fakirs lying on beds of thorns.

Unroutable are not welcome on such religious occasions and some of the better off castes, like the Jat peasant farmers, even set up their own enclaves, parking their tractors carefully inside them.

Throughout the afternoon religious songs, accompanied by

drums and rhythmic clapping, were heard from loudspeakers. Africa watch: Millions of people throughout Africa watched the eclipse, which was total in an area 90 miles wide, stretching from the Atlantic, across Zaire, Tanzania and Kenya to the Indian Ocean. The period of total eclipse lasted about four minutes.

Clouds in China: When the eclipse was seen in China, the sun was already beginning to set. The total eclipse lasted only one minute and 35 seconds. In parts of China clouds obscured visibility.—UP.

West Germany has been providing military aid to Greece and Turkey in recent years. However, Turkey's dire economic problems prompted an international crusade to help with massive aid.

Herr Matthöfer is, in fact, the Organization of Economic and Cultural Development coordinating the aid programme, which is expected to give Turkey this year a total of almost \$5,000m (£2,200m) in the form of grants, loans and rescheduled debts.

Greek leaders, both in the Government and the Opposition, recently declared that they have no objection to the giving of aid to Turkey to set its economy back on its feet. In fact, they told Herr Matthöfer today that the rare firm conviction that an economically healthy Turkey is a safer neighbour for Greece.

What the Greeks would seriously resent, however, would be Western military aid to Turkey on a scale that would force the Greeks to spend vast sums of their own money to match Turkey's military procurements and maintain the equilibrium.

Herr Matthöfer is expected to move to the Turkish leaders Bonn's keen interest to see Greece return to the military wing of NATO, especially at a time when the probability of developments in the Balkans add urgency to the need to bolster NATO defences in the area.

Turkey has been blocking Greek reintegration because Athens has insisted on regaining the responsibility for NATO air defence in the Aegean that had been theirs before they left the alliance.

Bonn pledge of military equilibrium in Aegean

From Mario Modiano, Athens, Feb 17

Herr Hans Matthöfer, the West German Finance Minister, reassured the Greek leaders today that while Bonn was keen to see that Turkey should get massive aid to restabilize its faltering economy, it was just as interested in the preservation of the balance of power in the Aegean.

Herr Matthöfer who is co-ordinator of the massive economic aid pledged by the West to Turkey, spent today in Athens on his way to Turkey. He called on Mr Constantine Karamanlis, the Prime Minister, and had extensive talks with Mr George Rallis, the Foreign Minister and a former Greek minister.

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Hebron settlement ruling delayed

From Moshe Brilliant, Tel Aviv, Feb 17

The Cabinet in Jerusalem today put off a decision on allowing restive extreme nationalists to move into houses in the heart of Hebron which they claim belonged to Jewish victims of an Arab pogrom 50 years ago.

The Government postponed its decision for a week after hearing reports of angry international reaction to its resolution of last week reaffirming that Jews must not be prevented from living in the Arab town of Hebron. The city, which played an important part in biblical and Muslim history, came all-Arab after the 1929 massacre.

Militants from Kiyat Arba, a Jewish settlement of Hebron, were talking tonight of moving into the ruined buildings without permission, to force the Government's hand.

The Government threatened the precedent of 70 women and children of Kiyat Arba who in April took over a former Jewish hospital in the heart of Hebron in defiance of the Government but eventually received Government protection and support.

Details of the Cabinet discussion were secret as the meeting was proclaimed as a session of the Ministerial Security Committee whose

proceedings it is unlawful to report. Mr Ephraim Evron, the Ambassador in Washington, who was recalled today for consultation, was said to have given the ministers a first-hand assessment of the impact of the Hebron decision on relations with the United States.

Mr Menachem Begin, the Prime Minister, read a letter from Mr Vance, the United States Secretary of State. A participant in the meeting said the letter asked the Israeli Government to refrain from implementing last week's resolution on Jewish rights to live in Hebron. Mr Begin told his colleagues he would send Mr Vance the text of the resolution which expressed a principle but was not an operative decision.

The vote on the principle last week was unanimous, but Mr Begin said the ministers have spoken privately against putting it into practice.

Meanwhile legal obstacles to the proposed settlement in central Hebron have surfaced. The Attorney-General ruled last week that the Jewish buildings claimed by the Jewish militants were occupied by tenants whose leases from the Jordanian Government were protected by law.

Mr Amnon Berman of Jerusalem claimed this weekend that he was the great-grandson and heir of the owner of another building and served notice that he would press charges of trespassing if the Jewish militants move in. The heirs of the fifth property have not been traced.

Arab opposition was expressed in Hebron itself today when 100 women occupied city hall for several hours.

In Gaza, Mr Rashad Shawa, the mayor, said that moves to settle Jews in Hebron and establish normal relations with Egypt without considering Palestine interests had provoked the tensions who yesterday killed three people and injured 11 in the city's main square.

The three died when a grenade was placed in the back of an army lorry. Ninety minutes later another grenade hurled over the wall of the American Baptist hospital, injuring six people.

Security sources said that Gaza, which had been relatively tranquil for several years, is expected to become a more active area. Since President Sadat proposed that the Gaza should get autonomy before the West Bank the Palestine Liberation Organization regards the strip as a prime battleground, the sources said.

South African military sources are predicting that Swapo will go all out to make its presence felt by means of a spectacular military action.

General Chand is due to spend 10 days in Namibia for a first-hand look at the progress of establishing the demilitarized zone which political leaders in Namibia consider to be unworkable. It will cover an area bigger than the British Isles.

Colonel Leon Mellert, police press spokesman, said: "There was enough to start a small war. There is evidence they have been smuggled into South Africa with specific, strategic targets in mind."

The weapons included latest models of Kalashnikov AK 47 assault rifles, hand grenades, plastic explosives, and detonators.

The detonators were packed in cotton wool in Wooden Cuban cigar boxes. "Everything was very well protected against the elements," Col Mellert said. "There was no indication as to how long the weaponry had been there."

Police and troops are still searching the area which they refuse to identify. Colonel Mellert said: "We regard these finds as a tremendous breakthrough in curbing the rising in terrorist infiltration in the last few months. The find has spoiled a lot of plans for possible Silvertons."

Last month three gunmen were shot dead when police stormed a bank at Silverton, near Pretoria, where 19 hostages had been held for eight hours. Two of the hostages, both women, were killed.

London Muslims in bitter dispute

By David Watts

The board of trustees of the Islamic Cultural Centre in London is expected to report soon on a dispute which has split the Islamic community and brought private fears for the life of Dr Zaki Badawi, the centre's director.

For weeks, charge and counter-charge have been flying in discussion among Muslims living in Britain and in the Arabic and English-language press both here and in the Middle East. Both sides are highly charged in pursuit of their positions and there is more than a whiff of Arab politics beneath the debate on the handling and organization of the centre's activities and those of the mosque near Regent's Park, London.

Dr Badawi's detractors say he has advocated non-Islamic teaching, reduced the amount of Islamic teaching available to the children of Muslim families, and that he has filled the mosque with his friends. They also claim that

his Islamic learning is less than scholarly and that he has created divisions within the Muslim community in Britain.

There are a host of lesser accusations which Dr Badawi rejects as wrongly as he does the more fundamental criticisms.

But the situation is becoming serious as the board's six-week investigation draws to a close.

"If the board does not act quickly the Muslim community will stone him to death," Dr Badawi rejects the charge that he has reduced the amount of teaching available for young Muslims saying that when he arrived to take over the directorship in 1978 he faced outstanding payments of £25,000 and that he has now restored the level of instruction to something like that previously available.

Faced with criticism of his scholarship he claims that he is the best-qualified director of the centre to hold office since it was opened in 1944, having

two degrees from Al Azhar University, Cairo as well as a doctorate in Islamic Thought from London.

His critics say that errors in the Islamic Quarterly, published by the centre, have betrayed ignorance of the Koran.

They also say he has introduced politics into the running of the centre.

Dr Badawi says that, far from introducing politics into what should be an apolitical centre of religion and learning, he has sought to take a middle course between the extremes of left and right in the Muslim community in Britain and that his objective has been to blend the Muslim community as far as possible into the British scene.

The director's critics are confident that when the board reports, Mr Nassir Seif el Buay, the chairman and Omani ambassador, will recommend that Dr Badawi is relieved of his post. Dr Badawi is equally confident that the ambassador and his five peers will find in his favour.

South African troops find huge cache of arms

From Our Correspondent, Johannesburg, Feb 17

Caches of Soviet-made arms allegedly smuggled into South Africa from Mozambique by African National Congress (ANC) guerrillas have been discovered by police and troops searching rugged country in northern Natal. Police said this morning the haul was the biggest ever made.

Colonel Leon Mellert, police press spokesman, said: "There was enough to start a small war. There is evidence they have been smuggled into South Africa with specific, strategic targets in mind."

The weapons included latest models of Kalashnikov AK 47 assault rifles, hand grenades, plastic explosives, and detonators.

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Binaisa rally in Kampala attracts 10,000

From Our Correspondent, Nairobi, Feb 17

President Binaisa of Uganda, who is resisting moves by members of his own Government to force his resignation, appeared to gain considerable popular support yesterday when he drew a crowd of more than 10,000 people at his first public rally in Kampala since taking office last June.

Referring briefly to the growing opposition, he said: "Some of you are in a hurry to become president of Uganda. I think I should wear a sign saying do not disturb."

He did not refer directly to Mr Paulo Muvunga, who was removed last weekend from the Ministry of the Interior. But support for revoking Mr Muvunga's ban on three newspapers.

He is now thought to be held in Fort Dimanche, Port-au-Prince, a prison where, according to Amnesty International, several hundred political prisoners are known to have died in recent years.

This is not Sylvio Claude's first experience of prison. He was arrested earlier last year when he stood as a candidate in the legislative elections against the Contrôle-Général of Police.

According to people who witnessed his arrest, Sylvio Claude, a businessman from Mirebalais, was beaten severely by the group of security militia, or Tontons Macoutes, who came for him. He said later he had been given electric shocks on the soles of his feet before being deported to Colombia.

He returned to Haiti a couple of months later to found the Christian Social Democratic Party—a courageous undertaking, given President Duvalier's antagonism to all political opposition, and the repressive powers on the island of the Tontons Macoutes, and the President's special security corps, the Leopards.

Engineer pulled from wreck of British jet

Billerica, Massachusetts, Feb 17.—Six men and a woman were killed by an eighth person survived yesterday when a British cargo aircraft crashed soon after taking off in heavy snow from Boston's Logan International airport and exploded a few hundred yards from a residential neighbourhood.

Originally, seven people were believed to be on the aircraft, but another body was found later in the wreckage, an official reported. All the dead were from England.

The crash occurred in a snowstorm minutes after the four-engine turbo-prop owned by Redcoat Air Cargo Ltd of Luton took off from Logan on a flight to Shannon and London. The cargo was computer parts bound for the Digital Equipment Corporation in Galloway. About 10,000 gallons of aviation fuel were also on board.

According to a witness, the Britannia cargo jet ploughed through a line of trees, slipped through a field and hit more trees before coming to rest on an embankment behind an industrial park.

It must have been trying to make the field. It hit the first line of trees and started coming apart. Pieces of the plane were flying up in the air and there were a lot of small fires and a big explosion," said Jim Murphy, aged 17, of Billerica.

The lone survivor was the flight engineer, identified as Richard Creer, aged 59, of Parkstone, Dorset. He was said to be in a critical condition. A resident near the crash site said he had found Mr Creer still alive and dragged him away from the burning wreckage and administered first aid until medical help arrived.—AP and UPI.

Commercial property

Developing historic city centres

Redevelopment in the sensitive central areas of important historical cities is always a somewhat tricky business. It is interesting therefore that in Bath, Haslemere Estates, who have had more experience than most in dealing with individual historical buildings in the office field, have now started work on their first shopping scheme.

It involves the part demolition and reconstruction and part renovation of existing buildings to produce 44,000 sq ft of shopping space and 20,000 sq ft of offices.

The scheme, which will cost over £2.75m, comprises the former Plummer Roddis block and Old Red House at

179 New Bond Street and 1/9 Upper Borough Walls. The site has been neutralized for over a decade by argument over the future of the buildings. Finally, after a selected tender, Bath City Council granted Haslemere a ground lease of 125 years on the site at an initial rent of £36,000 a year exclusive, geared to 10 per cent of the rents with ground rent reviews on an "as and when" basis.

Nos 1/4 Upper Borough Walls and the fronts of 6/9 New Bond Street will be retained and renovated. Demolition work has started on the remainder. The main contract is expected to start in July with completion due in the latter part of 1981. Architects are the Alec French Partnership, of Bristol.

Plans provide for 12 shops plus a small store with the 20,000 sq ft net of offices on the second and third floors. Hartnell Taylor and Cook, of Bristol, advised Haslemere in the negotiation of the ground lease and are sole letting agents.

Across the country, French Kier Property Investments have sold their new town centre development at Canvey, Essex. The long lease-

hold investment has been acquired for £3.8m by the Greater Manchester Council Superannuation Fund. French Kier acquired the various properties within the 61 acre site in conjunction with the Castle Point District Council (initially, Canvey Island Urban District Council), passing the freeholds to the council and in return receiving a lease of 125 years of the whole site.

The development, which opened for trading last April, comprises a store of 30,000 sq ft let to Keymarkets and 28 standard units, together with parking for 280 cars.

The superannuation fund was represented by Wright Oliphant, and Edward Erdman acted for French Kier in letting the development. A factory and site in Kidderminster has been sold by Morris and Co for redevelopment to LCP Developments for about £500,000.

The property, in Worcester Road, is freehold and comprises an extensive range of industrial buildings which totals some 118,000 sq ft, including more than 11,000 sq ft of offices, on a site of 10.2 acres. The site also includes some four acres of undeveloped land with planning permission for a further

17,000 sq ft of industrial space. The premises are a little over one mile south-east of Kidderminster town centre, on the Worcester to Wotton road. Jones East Wootton and Edwards, Bigwood and Bewlay acted for Morris and Co throughout the transaction.

Another industrial redevelopment is planned on the site of the former Diploma Laundry, on the corner of Shaftesbury Road and Carlisle Road, Leyton, London, E10, which has been acquired by Rohan Construction UK, the Irish-based construction and development company. The vendors were Diploma Investments.

All the existing buildings will be demolished and new factory and warehouse units totalling some 15,000 sq ft are to be constructed in units from 2,000 sq ft upwards. The scheme is expected to be completed in January, 1981, and it is thought rents will be in the region of £3 a sq ft.

Alternatively, the developers will consider a freehold package deal. Peter Taylor and Co who introduced the site acted for Rohan in the acquisition and are sole letting agents.



Modernized offices in Sutton, Surrey; annual rent £270,000.

After their acquisition last year of Good Listening Ltd, the Rediffusion Group have sold the freehold interest in the main service centre of Good Listening at 502 Walldown Road, Bournemouth. The property was finally

sold at the asking price of £435,000 to Parvalux Electric Motors, who intend to occupy the factory. Fletcher King, of London, acted for Rediffusion.

In Sutton, Surrey, the Pension Fund Property Unit Trust is looking for an initial investment of £270,000 a year, or over £7 a sq ft, for its office building at 3 Throby Way, which has just been the subject of an extensive modernization scheme.

Jones Lang Wootton, acting for PFPUT, have been instructed to look for a single tenant for the building, which was built in the 1960s and has a total of 37,500 sq ft on nine floors above an entrance hall on the ground floor, and car parking on two levels.

Apart from such items as fitted carpets and tiled ceiling, a feature of the building is a fitted telephone installation. Until last year the property was occupied by the local authority, prior to its move to the new Civic Centre.

In London, Telephone Rentals Ltd have sold their freehold interest in TR House, in Glesage Road, Streatham, SW16, to James Walker Goldsmith and Silver Smith Ltd. Moss and

Partners acted for Telephone Rentals and Wilks Head and Eve for the buyers. The building, which has a total area of some 10,000 sq ft, has been used by Telephone Rentals as their South London headquarters. A large property investment portfolio has changed hands for £17.3m. The sale was by PECU, a consortium formed by Phoenix Assurance Co and the pension funds of Electricity Supply, the National Coal Board and Unilever.

The portfolio consisted of 144 properties and was part of the property assets of Cedar Holdings, which was rescued by the specially formed consortium in 1975. The buyers are a group of private investors led by Mr Godfrey Bradman, chairman of London Mercantile Holdings.

PECU has retained the 15-storey shop and office complex in Buckingham Gate, where the main tenant is Rolls-Royce.

Healey and Baker acted for the consortium. Valuers for the buyers were Clive Lewis and Partners, and Montague Evans also advised.

Gerald Ely

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Modern flat, ideal for a single person or a couple. For more details, please contact me.

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Large, 6-bedroomed, 2-bath flat. For more details, please contact me.

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PROPERTY WANTED

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I have just completed the building of a new office building in the City of London. The building is a modern, air-conditioned office building with a total area of 10,000 sq ft. It is situated in a prime location in the City of London. The building is available for lease on a long-term basis. For more details, please contact me.

University of Oxford
in association with Oriel and Somerville Colleges

GORDON MILBURN
JUNIOR RESEARCH FELLOWSHIP

Applications are invited for the above post in the field of the history of the Middle Ages. The Fellowship is for a period of three years, starting in October 1980. The Fellow will be expected to produce a book of some 200 pages. The Fellowship is open to graduates of any university. For more details, please contact me.

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Wanted at Eastbourne College for September. For further details, please contact me.

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Required urgently for foreign commercial school in London. For more details, please contact me.

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DEPARTMENT OF ELECTRICAL ENGINEERING

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Applications are invited for the above post. The Fellowship is for a period of three years, starting in October 1980. The Fellow will be expected to produce a book of some 200 pages. The Fellowship is open to graduates of any university. For more details, please contact me.

University of Hong Kong
CHAIR OF ORTHOPAEDIC SURGERY

Applications are invited for the above post. The Chair is for a period of three years, starting in October 1980. The Chairholder will be expected to produce a book of some 200 pages. The Chair is open to graduates of any university. For more details, please contact me.

NATIONAL UNIVERSITY OF LESOTHO

VICE-CHANCELLOR

Applications are invited for the post of Vice-Chancellor. The Vice-Chancellor will be responsible for the overall management of the university. For more details, please contact me.

Southampton THE UNIVERSITY

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Applications are invited for two Postgraduate Research Fellowships. The Fellowships are for a period of three years, starting in October 1980. The Fellow will be expected to produce a book of some 200 pages. The Fellowships are open to graduates of any university. For more details, please contact me.

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OXFORD

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UNIVERSITY OF LONDON

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Applications are invited for the above post. The Director will be responsible for the overall management of the university's financial affairs. For more details, please contact me.

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Applications are invited for the above post. The Fellowship is for a period of three years, starting in October 1980. The Fellow will be expected to produce a book of some 200 pages. The Fellowship is open to graduates of any university. For more details, please contact me.

S.S.R. C. STUDENTSHIP
(RESEARCH LINKED)

Applications are invited for the above post. The post is for a period of three years, starting in October 1980. The holder will be expected to produce a book of some 200 pages. The post is open to graduates of any university. For more details, please contact me.

More Appointments on page 6

Scottish FA Cup			
Fourth round			
Aberdeen	8	Airdrie	0
Celtic	2	St Mirren	0
Hearts	1	Springburn	0
Kilmarnock	1	Barrhead	0
Marion	0	Dunfermline	0
Queen of the South	0	Dundee	0
Rangers	1	Dundee Utd	0
Other matches			
Kilbirnie	1	Leicester	0
C. Palace	2	North Co	0
East Fife	0	Dundee	0

Charles Douglas-Home on how the Russians support Vietnam's battle

Russia's proxy war in Kampuchea

It is now a year to the day since China and Vietnam went to war in a three-week campaign which cost each side up to 40,000 men killed and wounded. The situation which first gave rise to the fighting and which is still largely unchanged, was the Vietnamese invasion of Kampuchea and the Russian support for that invasion, both of which have magnified the ensuing 12 months, in spite of Russia's other preoccupations in Afghanistan.

Thus the Chinese did not achieve any very clear objective from the engagement, other than a once-and-for-all punishment inflicted on the Vietnamese troops and country-side. However, that punishment was not cost-free, since they encountered much more effective resistance than they had expected, particularly from the low category Vietnamese units which were then stationed in the border area.

Those units have now been replaced by 20 divisions of battle-trained Vietnamese soldiers, but it remains quite unclear to western analysts why the Vietnamese last year chose almost completely to ignore the prolonged signs of a Chinese military build up on their borders.

Scorched earth

It is not just that the Vietnamese suffered serious casualties as a result of remaining unprepared. Their lack of preparation was relative, since Vietnam is the nearest thing in the world today to a "warfare state" which could bear 40,000 casualties lightly, against the millions of Vietnamese who have been sacrificed already in 30 years of almost continuous fighting. However, when the Chinese withdrew they literally scorched the earth behind them so that not one building was left standing. They even demolished a cave from which it is said Ho Chi Minh organized the siege of Dien Bien Phu. This had become something of a shrine to the Vietnamese: no more.

The Chinese occupation of some residual enclaves on the



Refugees on the run in the battle between Vietnam and Kampuchea.

border may still give rise to further skirmishing; but the chances of another major invasion seem slim in spite of the fact that Vietnamese operations in Kampuchea, under the sponsorship of the Soviet Union, continue unabated. So, a year after the Sino-Vietnamese war began, it is possible to draw certain sombre conclusions from it—least from the Chinese point of view.

The first is a reminder of China's great military weakness, which is the basis for its legitimate concern to encircle itself by fully armed and modernized forces of the Soviet Union and/or its proxies. Among the many other "ifs" about the Soviet invasion of Afghanistan on the Chinese western border, it is possible to argue that it would not have happened so easily if China last year had put up a more convincing show in the fighting

with Vietnam on her southern border.

The argument then that China showed up the ineffectiveness of the Russo-Vietnamese friendship treaty has been rather invalidated by subsequent events. Under the terms of that treaty, the Russians have transferred more than 100,000 tons of defence material to Vietnam since the war with China ended.

However, the Vietnamese economy is in collapse. It is a technically bankrupt country with virtually no capacity to repay foreign loans or even to service interest payments which now exceed its total annual foreign exchange earnings. Yet the bankrupt Vietnamese manage to maintain one million men under arms with an invasion force of 20 divisions (200,000 men) fighting in Kampuchea and another 20 divisions on duty in the border areas

devastated by China. A simple answer as to why a bankrupt, stagnant country can continue to wage such a war is that it is sustained in that war entirely by the Soviet Union.

It is true that operational command remains firmly in Vietnamese hands, though some Russian influence may be detectable in the recent shake up of the defence command in Hanoi. Russian military advisers are aiding Vietnam's forces in Kampuchea number about 5,000 (similar incidentally to the scale of the Soviet presence in Afghanistan before Christmas) and the position of Vietnamese troops in Kampuchea is so clearly consolidated in most areas that the Soviet investment there looks much more secure than in Afghanistan.

However, even if the command of operations remains in Vietnamese hands, the extent of Vietnam's economic insol-

veny and industrial incapacity reveals the totality of her client status for receiving Soviet military assistance. Every shell which is fired, every truck which moves, every helicopter which flies in Kampuchea, does so with the active connivance of the Soviet Union. During the war with the United States, the Vietnamese received a military assistance group from the Soviet Union which still exists now to channel through the military aid from Moscow and supervise its deployment. Initially, after the American withdrawal, the North Vietnamese inherited much military equipment abandoned in the south. Gradually this bonus was eroded owing to an absence of spares and the inability of the Vietnamese to maintain the equipment.

The Russians have sent in hundreds of tanks, artillery and anti-tank guns. Air defence missile systems have also been

provided to maintain the advanced air defence environment which Vietnam created during the American bombing campaign and which deterred the Chinese from sending in aircraft when they invaded last year. Though the main emphasis has been on army equipment the air force has received at least 60 MiG 21s as well as earlier models for pilot training. The navy has been equipped with about 50 coastal vessels and the Russians hope to acquire, in exchange, forward naval facilities at Danang and Tamranh Bay, as bases for extending naval operations in the South China Sea.

Principal party

Thus the war in Kampuchea is being fought by Vietnamese troops but it is being kept going by the Russians. It may be technically accurate to conclude that there is no evidence of active Russian involvement in Kampuchea similar to that which is now emerging in Afghanistan. Further explanations can be found in the nature of the Kampuchean war itself—a counter-insurgency operation with which Russian commanders have no familiarity, even though they may now have to start learning the hard way in Afghanistan.

In the diplomatic world, at the United Nations and elsewhere, Vietnam has hitherto been considered to be the principal party to the war in Kampuchea. Can that really be accepted when the Russians have such a stranglehold on Vietnam's capacity to wage any war, anywhere? The answer to that question must be that it is Russia's war in Kampuchea, waged by convenient proxies whose lifeline could be cut off at any moment without anybody else turning up to replace it.

The Chinese have hitherto been more painfully aware of that fact than has the West. Last the invasion of Afghanistan was allowed to pre-empt all our attentions, the Soviet Union's critical involvement in the war of South-east Asia is worth remembering.

Bridging the transatlantic gap over nuclear fuel

With the end of a two-year international study, the argument between the United States and Europe over nuclear fuel and the spread of nuclear weapons is entering a new phase.

At issue is the reprocessing of used fuel and the construction of breeder reactors. Both of these are central to the long-term energy plans of several European countries, and they figure in Mrs Thatcher's vision of Britain's future. The United States opposes both on the ground that the stockpiling of plutonium makes it easier for governments or even terrorists to acquire nuclear bombs.

It has threatened to carry its opposition to the length of cutting off supplies of nuclear fuel. The study, just being concluded, is the International Nuclear Fuel Cycle Evaluation—INFCE to its friends—conducted at meetings in Vienna, and attended by representatives of 63 countries. It was designed to create a technical view that would help to bridge the gap between the United States and most of western Europe, and Japan.

It is due to report at the end of this month, but its contents have already been leaked, and it is clear that they favour the European side more than the American.

It is clear also that INFCE has not bridged the transatlantic gap. The study was designed to check the spread of nuclear weapons, and measures to supply nuclear power for electricity. The Europeans worry more about the energy gap and less than the Americans about the spread of nuclear weapons. This is partly because Europe does not have the natural energy resources that America has, and partly because these days, Europeans tend to leave global questions to the super-powers.

Plutonium is the link between fuel reprocessing and breeder reactors, the output of one, the input of the other. Extracted from used fuel by chemical reprocessing, plutonium can be used as fuel for breeder reactors. But it can also be used to make nuclear explosives.

President Carter underlined the conditions attached to the supply by the United States of enriched uranium for nuclear reactors: that it must not be reprocessed without permission. Congress stiffened this policy with the Nuclear Non-Proliferation Act.

President Carter was evidently not prepared for the outrage which greeted his policies in France, Germany, Japan and some other countries. There is not enough enrichment plant in Europe now for all the uranium that Europe needs for its reactors (though Britain enriches all its own). European countries depend on America for their fuel. Now they found that this might be as uncomfortable as depending on Middle East countries for oil. Some are even sceptical about the supposed American concern about the spread of nuclear weapons, they suspect base commercial motives, particularly as the United States lags behind Britain and France in reprocessing and breeder technology.

Clearly, the United States could not impose an energy policy on unwilling allies—not if it wanted them to remain allies, anyway. President Carter suggested a technical study which he hoped would point the way to a policy which might replace an American *diktat*. This became INFCE.

Although the INFCE discussions were supposed to be purely technical, the familiar arguments emerged, albeit wearing technical clothes. Thus, the United States said that recycling fuel and building breeder reactors was not only dangerous, but unnecessary, since there is enough uranium in the ground for decades to come.

In the INFCE working group devoted to uranium resources, an American geologist backed this up with an optimistic paper about uranium supplies. But this was criticized by most of the Europeans present. They argued that once he went beyond the firelight of known deposits into the semi-darkness of "probable resources" and "possible resources", the availability was much less sure, and they certainly were not going to rely on the stuff being there.

Whether it is necessary to recycle uranium and breed fuel depends also on how much demand for power there will be. European economists' projections of future demand were higher than the American ones. One INFCE working group was devoted to breeder reactors, and as expected, the American forecasts for the cost and performance of breeders were more pessimistic than the European ones.

INFCE has now concluded that, contrary to the United States view, breeder reactors need not add substantially to the danger of nuclear proliferation.

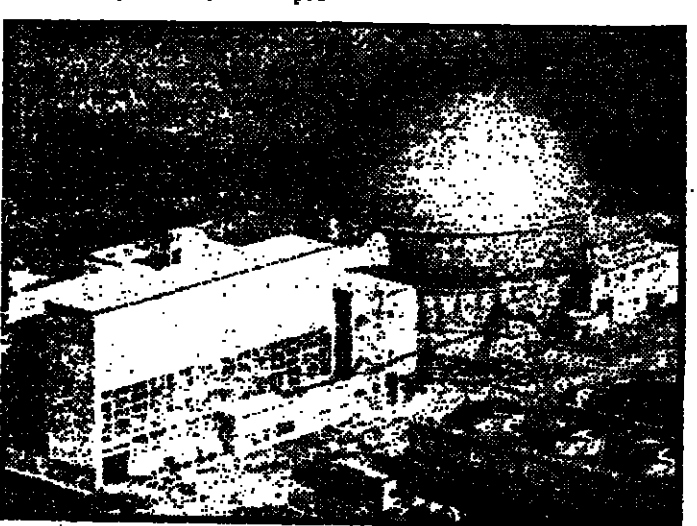
It also comes closer to the European projection of demand than to the American. However, this is not an end to the debate; it is a signal for its resumption. Some decisions have been held over pending INFCE's conclusions. United States shipments of nuclear fuel to Euratom countries were suspended briefly because of this disagreement but resumed pending negotiations and a new agreement after the INFCE report.

Britain is affected directly because Britain sends out fuel to Windscale for reprocessing, and since the fuel was originally bought in the United States, it has to have American permission to do so. Permission has been given so far on an *ad hoc* basis, but some permanent guidelines will have to be set.

All the transatlantic arguments have their counterparts inside America. Many Americans dispute the Administration's positions on reprocessing, on the breeder reactor, on uranium supplies. The nuclear power industry regards the Carter Administration as hostile; a senior industry figure described it recently as "a bunch of eco-freaks".

The INFCE report will lend strength to those inside America as well as outside it who argue for a change in American policy. It will not guarantee a change, particularly in an election year.

Norman Moss



Windscale: a nuclear waste plant.

Two warnings against hasty action on the Employment Bill

The path to more strikes

At present the headlines are full of the steel strike, not so long ago they were dominated by Grunwick. Will we learn as little from the present dispute as we have from Grunwick?

I ask this because clause 16 of the Employment Bill will encourage and stimulate future Grunwicks. It is a clause which has been overlooked in the debate about secondary picketing. What it does is to abolish the statutory provisions in the Employment Protection Act governing trade union recognition.

At present sections 11 to 16 of the Employment Protection Act provide for the reference of recognition disputes to Advisory, Conciliation & Arbitration Service (ACAS) for adjudication. On any dispute referred to it ACAS is required to investigate the facts, to ascertain the opinions of the workers involved, and then report with a recommendation, if any.

Most people concluded from the Grunwick affair that it would have been much better if ACAS's powers had been stronger. If ACAS had either had the power to enforce a ballot, or to enforce its recommendations, or both, there would have been no Grunwick dispute.

You would imagine that it would be a natural development from Grunwick, and indeed other cases, that the law on trade union recognition would if anything be strengthened. Since we have a Conservative Government introducing a Bill designed to strengthen the law in industrial relations on the grounds that it will reduce industrial disputes, it is surprising to find it simultaneously deleting altogether the existing law on trade union

recognition, thus ensuring that at least in this area there will be more industrial disputes, not fewer.

Why? The answer is not self-evident. It was the previous Conservative Government which introduced a statutory right to have recognition disputes investigated by the Industrial Relations Commission. The Labour Government, with TUC support, carried this principle into the Employment Protection Act, changing only the framework and the machinery. At last (it seemed) there was one industrial relations principle which had the support of both major political parties as well as the TUC.

Why, therefore, undo such agreement? Trade union recognition actually confers important legal rights on employees in a recognized union. It is not unreasonable for there to be some legal means to secure those rights where there is a good case and voluntary procedures have failed. Further, section 14 of the Employment Protection Act requires the individuals concerned to be consulted about their opinions on a recognition issue before ACAS makes a recommendation. Why is it that a Conservative Government wants to stifle rights such as these?

The reason given by the Secretary of State for Employment in the second reading debate on December 17 was that the operation of sections 11-16 of the EPA (which constituted the "compulsory element" in ACAS's otherwise conciliatory role) jarred with every other aspect of its work, which rests on a voluntary approach. Behind that is the Secretary of State's wish to take ACAS out of as much

controversy as he can, in order to ensure its long term future as a body in which both sides of industry can repose confidence.

A factor, undoubtedly, in the Secretary of State's thinking was a letter from the chairman of ACAS asking for the statutory powers conferred on it under sections 11-16 to be reviewed. Pre-eminent in ACAS's reasoning was that a number of court cases had thrown doubt on the degree of discretion that ACAS desired to deal with recognition references. Final decisions on some of these cases are, however, still awaited from the Lords.

Only the employers—the Confederation of British Industry and the Engineering Employers' Federation—CBF and the EEF—are actively seeking the repeal of sections 11-16. It was not something for which the Conservative Party sought a mandate in their manifesto—the subject was not mentioned. The TUC have not sought the repeal of these sections.

The case for the simple repeal of sections 11-16 of the Employment Protection Act has not been made out. The issue is being handled with the most unseemly haste. I do not argue that the present provisions are perfect (in my association's view they should be strengthened) or that responsibility for handling them should necessarily stay with ACAS. But, if there are genuine problems, time should be allowed to consider solutions. Clause 16 should be withdrawn to provide that time.

John Lyons

The author is general secretary of the Engineers' and Managers' Association.

It is a silly man who claims that he has not had that backing. Will Mr Prior get it this time? The issues which have to be decided, as they are the most difficult, are the most dangerous to our industrial relations future, are secondary picketing, already in the Employment Bill, and secondary blacking, the limits of which remain to be agreed.

Most workers who find themselves being picketed by men with whom they have no connexion and no sympathy take exception to it. A good example at the moment is the Sheerness steel works. Mr Prior's principle therefore applies. To allow an employer to bring an injunction against such activity is entirely right. It has the support of the employees and for the employers not to act would be failing to defend the right of his workforce to work.

The same applies to secondary action. An employer must be able to protect himself against a sudden closure of his works in support of a dispute in which he has no part and the outcome of which he cannot influence.

What of the other proposals on closed shops and secret ballots? Consider again the steel strike. If the workers of Sheerness have been protected, what of the workers of Hatfield? They, too, could have been spared secondary picketing. When they were called out on strike they could have used the provision within the Employment Bill to have called for a postal ballot to ascertain the views of the members. If the union threatened to withdraw their cards they would be protected from unfair dismissal by the new clauses on the closed shop.

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The principle behind Mr Prior's strategy is, therefore, that the law must have the backing of those to whom it applies. Conservative attempts to introduce such legislation in

If, however, the amendment on secondary action does not cover first suppliers and first customers, many of them could still have been called out. But to deny the union the right to do so is to deny its ability to prosecute its case. It would play into the hands of extremists, who would quickly make martyrs of themselves.

So Mr Prior's Bill does go to the heart of the matter. If it works it will be the first time since 1906 that the law has effectively returned to regulate the industrial action of trade unionists as distinct from employers.

In the main it is a sensible and workable measure, but will it stick? Certainly not if it is to be pushed through Parliament without proper consideration and enacted to try to bring to an end one particular dispute where the rights and wrongs are already blurred. Nor will it stand much chance if other government policies are seen to be divisive and unsympathetic. When thousands will be losing their jobs through no fault of their own, when cuts will be biting into everyone's budget and tempers will be running high, the need will be for calm reassurance.

If we do not get the atmosphere right and Mr Prior's Bill fails, or he is forced into hardening its provisions beyond the level of acceptability of those to whom it applies, we will have shown that no democratically elected movement can handle the unions within the law. If that happens, the blame will lie as much with the politicians as with the unions.

Richard Needham

The author is Conservative MP for Chippenham.

DIARY OF A WELL-DRESSED CHEAPSKATE

January is long past but the January sales are still with us in New York, though under different names. Price slashing is a year-round industry here. In February we have sales to celebrate Washington's birthday, Lincoln's birthday and St Valentine's Day, and the Easter sales are not far behind.

If no suitable day provides a pretext to give the stuff away, then we have the assistant buyer's sale, where the deputy to the chief is given his or her head to promote bargains. If all else fails, there is always the bankruptcy sale.

This is most prevalent in the field of men's clothing, which the evidence suggests to be a high-risk business, whose principals are not shy about confessing their woes in public. "Look, let's face it, we goofed," reads a typical advertisement. "We overstocked on these terrific European designer suits and now we have a cash flow problem, so we have to offer them at give-away prices."

On the radio the script differs only slightly. "So I says to my brother Irving, 'Whoever goes to that sale, it's the same. They beg you to come and take the merchandise away.'"

Soon the cash-flow problems may develop into something much worse. A store was advertising recently that it was in chapter eleven of bankruptcy proceedings. It offered no further explanation, assuming that any half-numerate reader of newspaper advertisements would enjoy an intimate familiarity with the bankruptcy laws and know that being in chapter seven meant that you were obliged to get rid of your most valuable possessions for a song.

In advertising thus, the stores are conducting an ancient New York tradition. A guide book published in 1872 has this to say of the Bowery, then the centre of the city's cheap trade:

"If one were to believe the assertions of the Bowery merchants as set forth in their posters and hand bills, with which they cover the front of their shops, they are always on the verge of ruin, and are constantly throwing their goods away for the benefit of their customers. They always sell at a ruinous sacrifice. Yet snuff fortunes are realized here and many a Fifth Avenue family can look back to the days passed in the dingy back room of a Bowery shop, while papa

'sacrificed' his wares in front."

Sometimes they can catch you off guard, though. The other day I thought I would drop into a shop near the office which in the 10 years I have known it has always had its windows papered with signs screaming: "Must raise cash" and "Lost our lease." It had closed down.

Contrition is not the only merchandising formula in use. Sometimes the buyers boast of their substantial coups. "We stepped in when the market was right and cleaned out the entire ranges of four famous-name manufacturers, so we can offer these startling prices, though they insisted that we take their labels out."

Or again: "We could have offered the entire quantity—lock, stock and barrel—to an out-of-town retailer. It would have been quicker, easier and more profitable. . . but we're out to win thousands of new customers this year. Our inventory man says they must go at this incredibly low price of \$39.95 (£27). . . bring a wheelbarrow! Stock up!"

Unable to resist anything with even the faintest whiff of a bargain, I made for that particular store, which stands

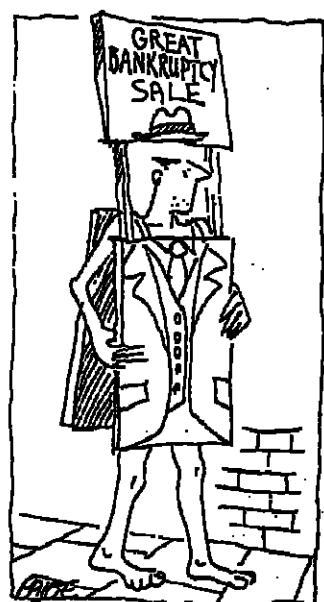
at the unfashionable end of Fifth Avenue. Sure enough, the large showroom was bursting with rail upon rail of clothing.

Though shortish and plumpish (let's face it, short and plump) I can generally find something ready-made which fits and suits me. I prefer to wander round by myself, trying on the odd jacket here and there, but a salesman soon bore down upon me and asked if he could help.

I told him I was looking for something inexpensive ("cheap" in America has derogatory overtones not present in Britain) in a size 44 short. Without bothering to search the rails, he replied: "I'm afraid there's nothing inexpensive in your size", stressing "inexpensive" and "your".

So much, I thought, for the entire ranges of four famous-name manufacturers. Lucky I left my wheelbarrow at home.

Searching my heart for an explanation, I decided that perhaps I was too elegant, too well turned-out, for a shop of that doubtful quality. The salesman, a person of experience, may have sensed I was slumming, that my real level was substantially up-market. To test the theory I called a few days later on Brooks



Brothers, very much at the right end of Madison Avenue, traditional home of the button-down shirt and the dark ivy league suit. As I trod the thick carpets and watched the salesmen discussing hunting and fishing, in hushed tones, with the customers (nobody appeared to be doing anything

so vulgar as actually buying anything) I felt that here perhaps I had found my spiritual home.

"What size are you sir?" asked the salesman as I fingered the soft suiting. I told him, and received a rude shock. "Nothing in 44 shorts at all, I'm afraid," he said, and went off.

I must have shown my dismay, for before I managed to escape to the lift, he came back. "We do have some 43 shorts," he confessed shyly. "Would you like to try those?"

Too late. His first error had been terminal and I was not going to give him a second chance. I took my waistline and my bankroll elsewhere.

Elsewhere was one of those cheap department stores where you may browse for several weeks without ever locating a salesperson at all. They had a special offer on brown corduroy suits and I snapped one up for not much more than the inventory man had stipulated in the other place.

It was interesting for two reasons. First, it was made in Japan. The last suit I bought in New York was from Korea, whereas the ones before that were from Poland, Yugoslavia

and Romania. This means that, even before the Afghan freeze, Asia was replacing East Europe as the main source of adornment for the male masses.

Secondly, it had, as my last two or three have had, a waistcoat. (Americans call them vests, and what we call vests they call undershirts. The purpose of a waistcoat is to cover braces, which they call suspenders. To an American, braces are what keep your teeth straight. And what we call suspenders they call carvers, which are another story.)

For the past year or two it has scarcely been possible to buy a suit without a waistcoat, though you seldom see people actually wearing them because braces have been out of style for years. So what becomes of them? Is there, somewhere in the City, an exclusive junk shop ("Vests 'R' Us") where they can be exchanged, sold, or given away to penniless fans?

If I have not found it, but speaking of sartorial mysteries, I came upon another a few months ago when I bought a smart trench coat (made in Korea again) at a bargain \$29. It had a seemingly normal bolt with a buckle, but when I fas-

tened it I found the ends dangled down beyond the bottom of the coat, almost reaching my ankles.

I guessed that the Koreans had somehow got the belts mixed up—that the one on my coat was meant for some Buddha-sized person, who was even now breathing in deeply to try to get his (my) belt done up.

I took the garment home coyly and showed it my wife, who solved the puzzle instantly. She pulled out from a pile of magazines a copy of the men's clothing supplement to *The New York Times* and showed me pictures of clean-shaven men with designer labels strutting together in their trench coats, the belts tied at the front in a knot instead of being fastened through the buckle.

So you should see me now, swinging down Madison Avenue in my brown corduroy suit, with my trench coat knotted at the front, a living tribute to Oriental enterprise. When I pass Brooks Brothers, I am tempted to employ a gesture which would warm the hearts of the tailors of Tokyo and Seoul.

Michael Leapman

مكازم الأصيل

Our future with COMPUTERS

£20,000m industry takes wary steps into 1980s

The two most important recent moves by the Government affect both the customer and manufacturing sides of the computer industry, **Pearce Wright**, our Science Editor, writes. The first is a recommendation from the Advisory Council on Research and Development for £1.5m to be spent by the Department of Industry on the start of a programme to encourage the manufacturing and mechanical engineering industries. The other has been the disposal by the National Enterprise Board of its 25 per cent stake in ICL for £38m. The placement among 800 institutions and private investors must be seen by ICL as a welcome mark of confidence in its future.

Most computer manufacturers stepped more warily into the 1980s than might have been expected of representatives of the technology which, by common acclaim, has become regarded as the industry of the future.

This may seem difficult to reconcile with the steady performance of most of the companies, and the prospects opening with the spread of microprocessors. That development has multiplied severalfold the number of potential customers by offering the local shopkeeper, small businessman, professional firms of lawyers, accountants, architects and the like, every secondary school in the country, and many others the chance of becoming computer users.

The world market in this sector is far from the decline that is bedevilling other areas of manufacture. The global trade is more than £20,000m a year, with nearly 85 per cent taken by North American manufacturers. However, the industry does not yet have the political clout wielded by the international oil companies and (to a diminishing extent) by the motor manufacturers and aircraft builders.

That influence will surely come if there is truth in the maxim that information is power. In the meantime there are questions weighing heavily on the industry, extending from the debate about technology versus employment to the politics of the level of government intervention necessary.

Most industry spokesmen clearly feel that their arguments about the productivity equation, in which a lower cost of production produces more sales and thus secures more jobs, is not listened to. They might get more belief in their case if the management organizations, like the Confederation of British Industry and the British Institute of Management, with experienced computer users among their members, stimulated some rigorous research studies into productivity. Such a programme could only advance the cause, already started in another context, by the Finiston inquiry into engineering, for technological literacy in the boardroom.

Cost-benefit analyses in some key service industries such as banking, insurance and airlines are perhaps easier to assess. The cost of processing each transaction, the calculation of the interest charges on millions of pounds released earlier by electronic transfer of funds between financial organizations, and the sale of seats and the turnaround time of aircraft can all be measured.

The yardsticks for measuring improvements in productivity in the production, construction and manufacturing parts of industry perhaps need more elaborate methods for monitoring performance. Yet there is agreement between the Government, members of the TUC, CBI and the City that the decrease of Britain's share of world trade in manufactured goods reflects low productivity and lack of innovation.

For instance there are far more microelectronic



Gerry Greaves

Top 10 American firms

	No. of employees	% revenue computers	revenue per man
IBM	325,517	81	\$24,745
Burroughs	54,638	87	\$44,328
NCR	62,000	74	\$42,113
Control Data	51,000	68	\$53,686
Sperry Rand	89,044	48	\$42,282
Digital Equipment	40,003	100	\$35,925
Honeywell	85,300	37	\$41,112
Hewlett Packard	42,400	38	\$40,754
Memorex	11,085	90	\$57,104
Itel (crashed in 1979)	6,500	71	\$106,000

Top 10 non-American firms

	No. of employees	% revenue computers	revenue per man
Hitachi	138,690	17	\$77,900
Toshiba	113,800	22	\$68,954
Fujitsu	32,062	21	\$54,925
Ci-HB	na	100	\$29,990
OLIVE	33,978	42	\$28,438
Olivetti	68,073	5	\$53,655
Siemens	322,000	4	\$35,000
Nippon Electric	60,554	21	\$60,217
Philips	400,000	4	\$40,490
Nixdorf	9,200	100	na
Ok Electric	14,201	35	na
Mitsubishi	na	5	na

Calculated from the Datamation magazine's industry profiles.

devices being employed per worker in the United States, Japan and West Germany than in the United Kingdom. The average factory worker in America is backed by more than £12,000 of capital compared with about £5,000 in the United Kingdom, and the office worker £1,000 compared with £500.

True, the present Government has maintained the Microprocessor Application Project (MAP), started 18 months ago, of courses in awareness, training, feasibility and application studies. More than 50,000 people from senior management to shop floor have attended various workshops. Perhaps

it is a little early to expect to be looking for a surge in capital reinvestment which might be expected to flow from this initiative.

The unions have certainly responded in a manner showing their wish for innovation and their concern to retrain and reequip workers for new jobs. Some frightening forecasts about unemployment levels have been made for office workers with microprocessor-based equipment like word processors that can absorb the work traditionally done by four or five typists.

The implications of these technologies cannot be underestimated. But there is no cause for alarm.

Indeed a fascinating article in the new magazine *Computer Age* advises the secretary how to take control of the operation of the electronic office.

This periodical can be highly recommended on the evidence of its first two issues. It contains for the businessman, professional firm, teacher and individual a reliable guide almost equivalent to a computer which on the ins-and-outs of buying and using computers.

If a prospective buyer uses the questions it examines as a checklist, then let a trade salesman beware. The price of technical misjudgment in buying computers cannot be overemphasized. Companies have founded on this reef.

With American companies commanding 85 per cent of the world computer market, it is difficult for manufacturers outside the United States to push through a genuine innovation in technology. Over the past year the usual American confidence has been sapped a little with imports of microprocessors and computer equipment from Japan passing \$1,000m a year.

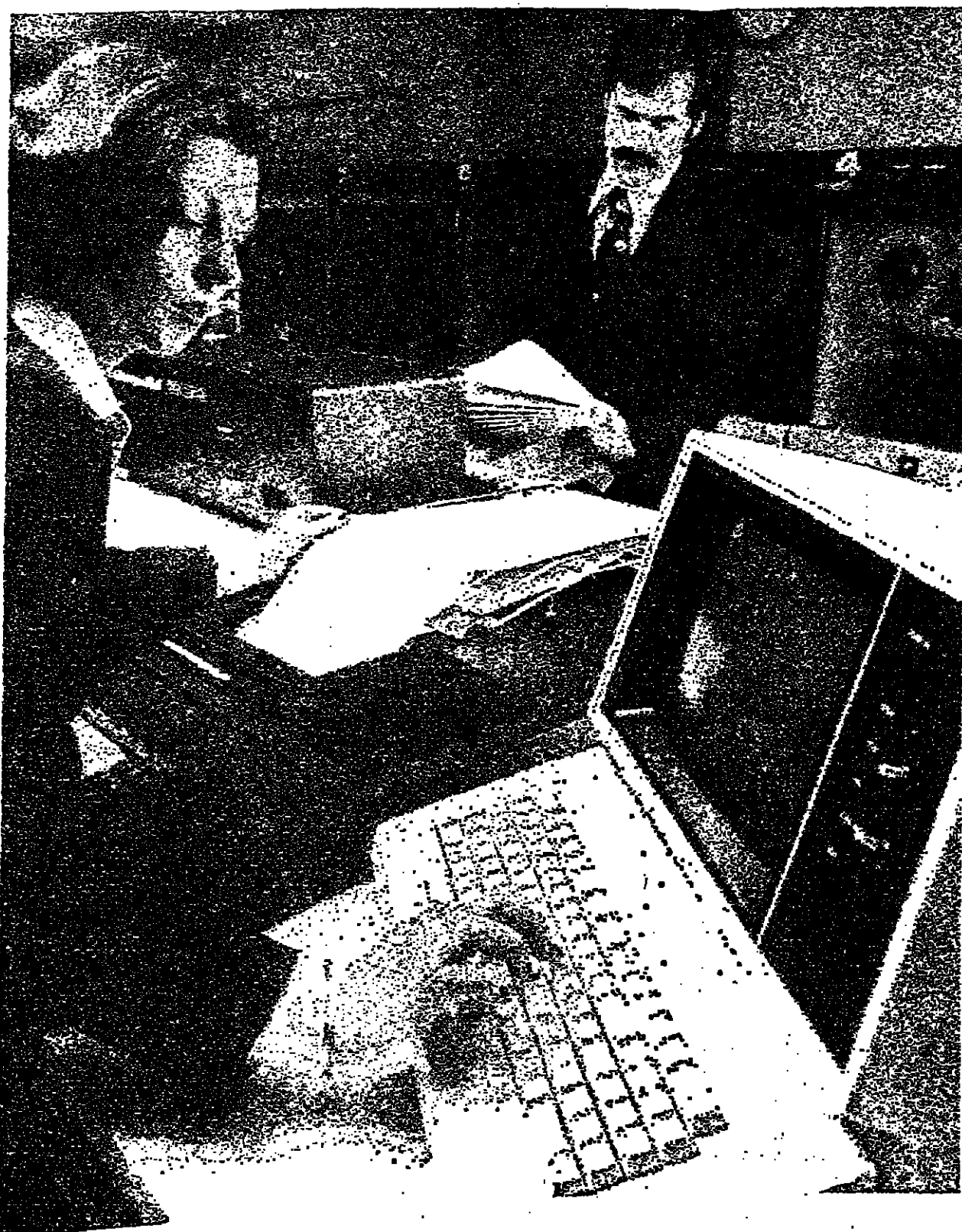
But the giant IBM corporation dominates the business. And the maxim, "when IBM sneezes, others catch colds" was demonstrated last year. It changed

the basis on which it leases, rather than sells outright, to attract more customers particularly through improved short-term rentals.

The consequences were catastrophic in the medium to large machine market for competitors who were selling a technology compatible with IBM, relying on marginal technical advantages and a more flexible attitude over pricing and services to win business. One outcome was that involving Lloyd's underwriters who are being asked for large payments on policies "covering leases which are being ended earlier than expected."

continued on next page

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Linked to a soul mate for life

In the Middle Ages when, as my analyst puts it, I was "young and gay" (no letters please, this is not a box number in *Time Out*), I was greatly impressed by a movie from the well known faith healer, Stan Kurbick. Like I mean the way out idea of a computer being able to lip read and to beat you at chess. Accordingly, I decided that nothing less than a computer should be my soul mate for life and that is precisely what she has turned out to be.

My wife, however, has never beaten me at chess, though she says when she is aged 2001 she very well might. Only five years to go and I will let you know how it turns out. Mind you, her mother, who is 2037, is trying to prevent us from living into the next century—she says she remembers the last Afghan War and does not want us to witness another. *Quelle pessimiste.*

The old dear once trained as a computer programmer and spent some time at my wedding reception pointing out that computers were merely tools of men (she obviously had not seen 2001). My mother-in-law has a lot to answer for.

Her bedside reading is the *Penguin Dictionary of Computers* and spending, as I do, so much time by her bedside (cups of tea, *Martini* soldiers, *Campari*-sodas and the *Sunday* joint), I have come to hate the jargon of the computer almost as much as I deplore the prancing errors in the *Daily Another Newspaper*.

Take, if you will, my mother-in-law (or alternatively the seventh entry in the aforementioned dictionary). "Absolute error" says the book, is "the magnitude of deviation of a computed result irrespective of sign". Well, all I can say is the magnitude of deviation at my school led to expedition and the result last time I was irrespective of sign was a nasty run-in with the traffic cops at Reigate. I did a U-turn at a no-entry and they gave way.

What about page 224 of the dictionary? Entry: "interblock gap" (which, as

you all know, is the distance between blocks of records on magnetic tape) reads "the gap is originally created during the period in which the tape is slowing down at the end of a write situation and during subsequent passes of the reel during reading from the tape the tape may be stopped and accelerated to full speed in this distance". For the cognoscent, the two gap lengths commonly in use are 0.75 inches and 0.56 inches.

The metric equivalents are not, alas, given; but you can work this out for yourself allowing two pins for every inch multiplied by a Packer for every over bowled. By use of a pocket calculator I have determined this as 22 yards to every interblock and Breatley still captain of England in 2001.

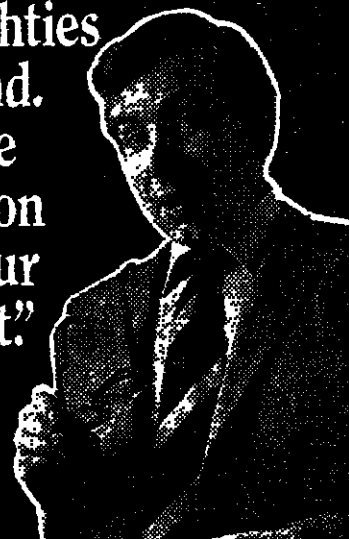
But wait. The entry for "parity bit" would confuse even devoted readers of page three of *The Sun*. "A check bit whose value (0 or 1) depends on whether the sum of 1 bits in the word being checked is odd or even—if the total number of 1 bits, including the parity bit, is even the word is known as having even parity though if the number is odd it has odd parity. A bit added to a group of bits to make the sum of the bits (including the parity bit) always even or always odd, eg with a set of six bits 010110 a parity bit of 1 is needed to give the set even parity, and a bit of 0 is needed to give it odd parity." Phew.

My sweet secretary, Fiona, said (while she was typing this): "When Napoleon" (her chesnut gelding) "is given an 0 bit he is never at all odd". We later fed all this information through the new computer at the office and discovered that Napoleon has turned into a mare. Fiona is inconsolable.

Why, she wants to know, is there a need for all this computer jargon. Why, she demands, can they not speak English like the rest of us. The Colonel (her father) replies crossly: "Because they are not English". Poor, simple soldier. By the way, Fiona's daddy is big in business nowadays—he is in something called software.

John Groser

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PHILIPS

Lynda King Taylor examines government policy on micro-electronics

Bold investments belie a conservative tradition

provided on a selective basis to firms in every sector of the British manufacturing industry. The MAP scheme came to assess the status of text in for some heavy criticism, particularly from those areas it is aimed at helping—the small and medium-sized firms.

Under this scheme firms can apply for feasibility studies and consultancy support to help them consider the possibility of using microprocessors to improve production. The Department of Industry will pay firms up to £2,000 of the cost of employing consultants to look at their manufacturing units from this point of view. Companies in the survey complained that to get approval for this grant there is a three-month waiting list for a maximum three-week consultancy study. Companies eager to consider micro-electronics feel put off by Whitehall.

inefficiencies, despite the promise of grants. In a study published this month, *Text Processing Strategy Study*, sponsored by the Department of Industry, a number of consulting firms, members of the Computing Services Association (CSA), pooled their knowledge and experience to determine the status of text processing technology and to develop a structured way of determining how individual companies can best use the technology.

Office costs now represent a substantial proportion of total company costs, and the CSA study indicates that they can be as much as 40 per cent to 50 per cent of total costs. Office productivity gains to date have been small in part a reflection of the low capital investment in manufacturing activities. The potential impact of text processing systems offers the chance to remedy this and to effect significant savings through improved use of both secretarial and management time.

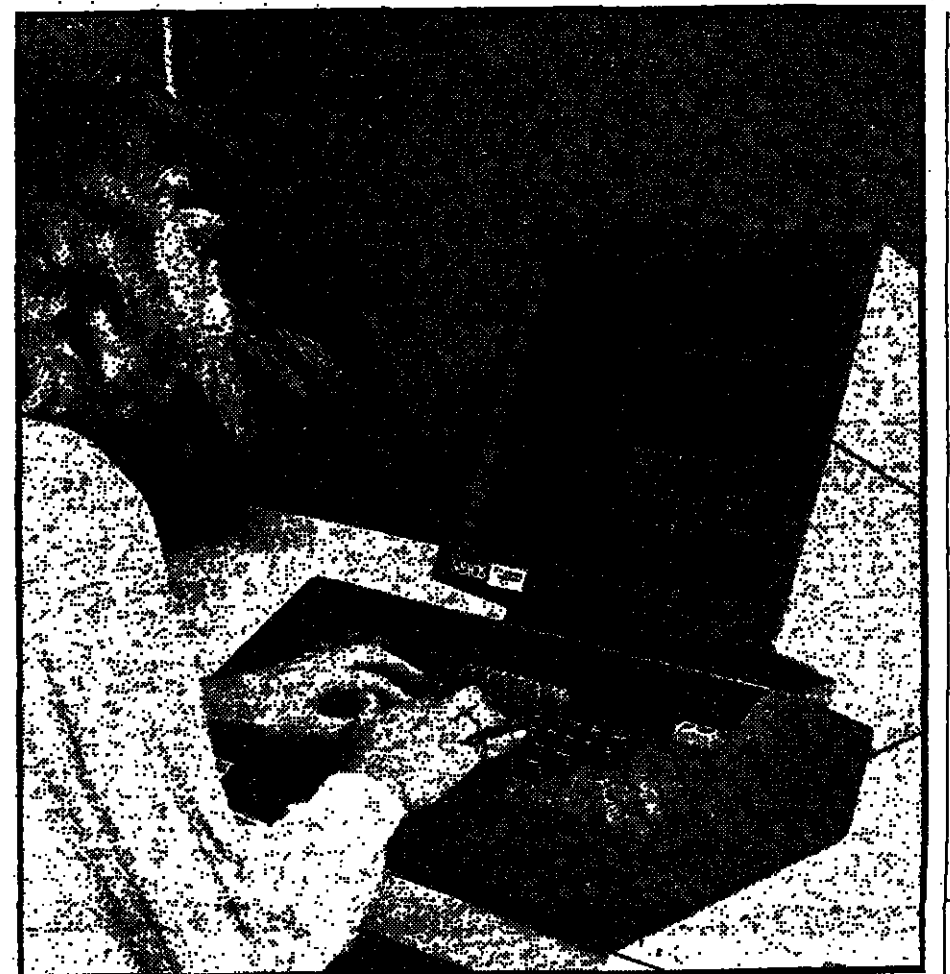
Consultants from the CSA team worked with selected companies, ranging from a large international bank to engineering and food manufacturers, to determine their text handling needs and analyze how technology could meet these needs. A strong multi-firm team of consultants has been pooled together to allow various British concerns to benefit from the experiences of other user companies. Such an approach should go some way to improving the areas of disquiet and caution highlighted by the Nedo director-general.

On the hardware side small businesses complain that there is no home-grown computer manufacturer who can satisfy their needs. Can the NEB-INMOS deal provide the answer? The NEB has already invested £25m in their INMOS semiconductor subsidiary and are awaiting government approval for another £25m—the balance of the original sum proposed. The NEB is confident that INMOS can manufacture Britain's answer to the silicon plants and that it must

if Britain is to stay in the micro-electronics business at all. Some critics say that to enter a mature market is difficult, and more likely to be governed by the laws of economics than by those of creativity. Others, like Mr. William Davidow, a vice-president of American microprocessor company Intel, argue for more Government action in training, education and housing to ease skill shortages, and encourage Fairchild, Motorola, and Texas Instruments, that break into this type of industry.

Both the CBI and Nedo argue for more Government action in training, education and housing to ease skill shortages, and encourage Fairchild, Motorola, and Texas Instruments, that break into this type of industry. Urgently on the longer-term effects of micro-electronics, for instance which activities and industries will be most affected by the microprocessor?

Can a balance be struck between the full benefits and potentially adverse effects of micro-electronics? Should more Government money, through the MAP scheme, be focused on creating more technological awareness in specific industrial sectors, for example machine tools and office equipment, as well as national coverage? Of well-tried ways to lose money, the high technology gamble seems the most certain.



A brainchild of the National Enterprise Board, the Nexos UK's C-text, a low-cost word processor with single-line display, is expected to challenge the Americans.

Wary steps into 1980s

continued from previous page

Another example of the pervasiveness of IBM is apparent in the microprocessor of the industry which manufactures memory chips, and the type designated 16K ram (meaning 16,000 characters of random access memory stored on a microchip) in particular.

There is a shortage because IBM alone is reported to have ordered about 25 per cent of the world supply of these devices, in long-term contracts of two to three years amounting to a total of 30 million devices. Many of these are coming from Japanese manufacturers who are undercutting many of the companies which pioneered microprocessors in Silicon Valley, California.

Their dilemma can scarcely be regarded as acute as some of the companies facing United Kingdom firms. A lot of attention focuses naturally on the Government's policies for the three companies that have been backed by the National Enterprise Board. They are NEXOS, producing office systems, INMOS selling software, and INMOS establishing the development and

manufacture of microprocessor systems. The role of the NEB under a Conservative Government places some automatic questions above the centre. Additionally, INMOS and INMOS are embroiled in other controversies. The first is a direct political wrangle over the chosen location, Bristol, for INMOS.

Other development regions are pressing for the firm backed by £25m of public money, to be elsewhere. The disagreement at INMOS is a management dispute, on fundamental technical-economic matters, between partners of the consortium.

Over a much longer period successive governments have nursed ICL, the largest European computer maker, through its evolution from numerous mergers. The company turned in its most successful year, with a pre-tax profit of £19m, about 90 per cent up on the previous year.

Perhaps the most significant indicator is an output per employee of £18,100, that have been backed by the National Enterprise Board. This is in an industry in which the producing office system, INMOS selling software, and INMOS establishing the development and

Malcolm Peltu considers the challenge of software

Irresistible force meets immovable object

In its fight to cut the cost of computing, the microchip faces a persistent foe: software. Mr Robert Heikes, a vice-president of one of the leading silicon chip manufacturers, National Semiconductor Corporation, described this battle as the irresistible force of microelectronics "meeting" the immovable object, software.

The minister of Employment, Mr James Prior, coined a phrase at last month's meeting of the National Economic Development Council which should be printed on every computer sales brochure, like a government health warning: "Chips are cheap but software is not".

The experiences of computer users over the past two decades, bought at great cost by organizations caught up in the computing sales success of the 1960s, have produced some guidelines and warnings. The most important lesson is that hardware—the machinery which you can pick up and touch, such as chips, magnetic tape storage and visual display screens—is the least of the user's problems and, increasingly, the less significant part of the cost. Most of the problems and the costs arise from two intangible but vital elements—software and systems.

It is a sign of deficient information about computing that the term "software" needs some explanation in a newspaper article, while the meaning of "microelectronics"—an equally specialized technology—can be assumed to be known. Software gives lumps of silicon the intelligence and flexibility which make the micro-chip such a potent industrial force.

A microprocessor, like any other computer processor, is based on a set of instructions which can perform elementary arithmetic calculations. A software program is a sequence of instructions which tells the hardware how to operate, as a composer uses the key of a piano to produce an infinite variety of tunes. Software, however, is not like sheet music because, figura-

tively speaking, software has the ability to turn a piano into a violin and the violin into an accounting machine. That is why the same microprocessors can be programmed to do many dissimilar functions.

Learning how to program is easy. The problems arise when developing complex, reliable, mass-produced software products which meet the standards of engineering which are normally expected by the consumer.

An error in a software program is called a "bug", and most programmers spend most of their time sorting out the bugs or "debugging" software. One American study suggests that two thirds of the costs of software lies in the maintenance effort, and Alan Benjamin, director of core communications for the British computer manufacturer ICL, estimates that something like 70 per cent of the development, maintenance and support of computer systems can be attributable to software.

Although there is much talk among computer scientists about software engineering, the way in which software is produced, there would be an army of people mending bridges continuously while travellers crossed rivers on makeshift rafts.

Some large software systems contain hundreds of thousands, even millions of instructions and can take an equivalent number of man-days to complete. Although it is possible to write a simple program very quickly, more complex programs not only take a longer time to design and produce but, when a bug is found, it can be difficult, lengthy and expensive to eliminate and to ensure that the changes introduced do not generate new errors. In some of the most complex systems, a steady state has



A small computer in Centre File Bureau Services.

been reached in which as many bugs are created as are solved.

Another way in which software is different from traditional concepts of hardware engineering is the minimal cost of production. Once a software program is written, it can be copied and distributed by a medium such as magnetic or cassette tape, just as music is distributed; software can even be transmitted over telecommunications links such as the Post Office's Prestel service. Software is therefore a people-intensive business, which is why software is an increasing proportion of the total cost of computer systems.

Before a program is written, an analysis needs to be made of the nature of the information system being handled. In a typical commercial computer application, this involves the procedures, say, for collecting information regarding sales and purchases, the way in which accounting calculations are performed, the printed invoices and reports which need to be produced, and so on. If the systems and systems costs have risen in line with the inflation in

usually involves non-computer staff both in the design process and in sorting out the problems of poorly designed systems development. These systems resources are seldom quantified and included in the total cost of a system, although they are an integral part of every computer project, of equal, if not more, value than hardware and software.

This should be remembered by any consumer of computer products faced with a salesman who tries to use the cost-saving glamour of the micro-chip to sell a system whose silicon chip is but the tip of a costly software and systems iceberg.

Over the past decade, micro-electronics has helped to cut the cost of raw computer processing power a thousandfold and more, and some computer memories more than one hundredfold. But systems costs have fallen far less dramatically, partly because some hardware such as printers and visual display terminals, have not been subject to large price drops, but mainly because software and systems costs have risen in line with the inflation in

In a study by Urwick Dynamic consultants, comparisons were made of similar commercial computer systems used between 1962 and 1979. This showed that software development and at 1979 prices, the total

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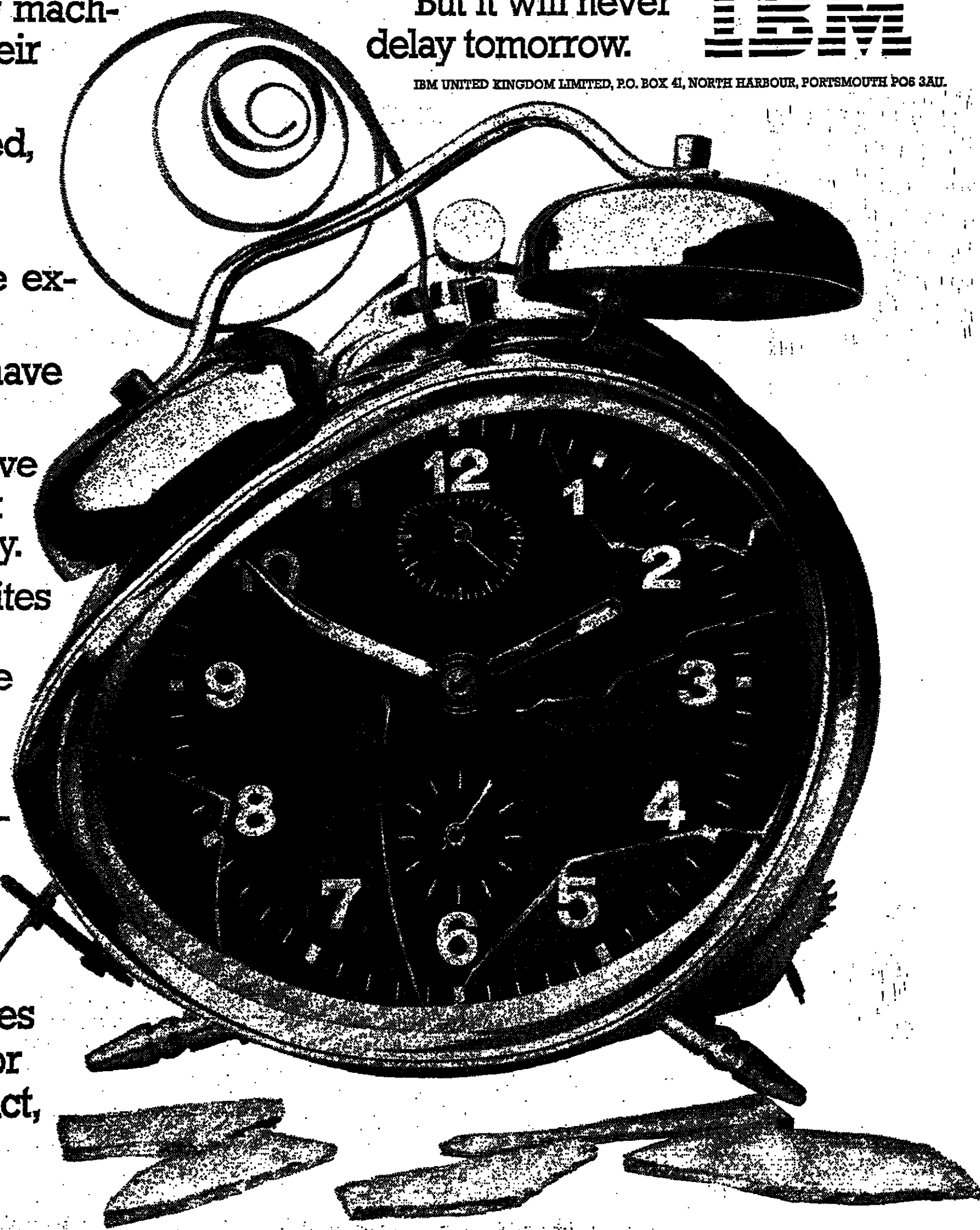
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Unions accept the inevitable

Labour movement's aim is early involvement

The trade union movement, which initially showed hostility to the introduction of new technologies because of fears that microprocessors would cause large-scale job losses, is awakening to the need to become involved in the planning and introduction of high technology working methods.

Unions, led by the TUC, have realized the inevitability of the chip and in recent months have been conducting thorough investigations into the effects not only on jobs but also on the United Kingdom's ability to compete effectively with more advanced overseas competitors.

The overall thrust of the union argument—expounded in the TUC document *Employment and Technology* which received backing from Congress last autumn—is that there has to be large-scale public funding of the United Kingdom's microtechnology industry, and that unions should be involved at the earliest stage in the introduction of new systems in the workplace.

As Mr Len Murray, TUC General Secretary, said in the foreword to the report: "The new technology has been described as 'the second industrial revolution'. We have to ensure that unlike the first industrial revolution, this second revolution now upon us will not trample underfoot the welfare and interests of those directly affected in the process of change. This entails a much greater role by government and the public authorities than 100 years ago."

The report itself said: "What is needed is a co-ordination of economic, industrial and social policy measures across the different levels of the economy, including national, industry, company and plant levels. This poses great challenges to the trade union movement itself, which must develop its structures, policies and capacities to meet these changing demands."

The TUC suggested a list of priorities for union negotiators to pursue when new technology is to be introduced into a particular industry.

It argued that in order to safeguard jobs, unions should seek a 35-hour week, a reduction in systematic overtime, longer holidays,



Bodyshell production line for the Fiat Strada, the car built by robots.

better provision for trade union and public day, sabbatical leave and early retirement for older workers on improved pensions.

The union movement believes that the introduction of new technology will lead to a large cut in employment and the report suggested that women workers will be most affected.

"Application of micro-electronics to clerical and retail work—for example in word processing, mini-computers and point-of-sale terminals—threatens hundreds of thousands of jobs in the Civil Service, local authorities, banking and insurance and offices of manufacturing companies, where women frequently comprise 70 per cent of the workforce," said the report, which was compiled by TUC research staff and officials of affiliated unions.

As an extension of the TUC's policy forming process, a delegation of senior union men led by Mr David Bassett, general secretary of the General and Municipal Workers' Union and chairman of the TUC's influential economic committee, visited the United States last year to examine the growth of the micro-technology industry and its economic and social consequences.

Their report and the main TUC report were submitted to the National Economic Development Council meeting last month which was chaired by the Prime Minister. The result was that the TUC and Confederation of British Industry are to join approach to negotiations on the introduction of new technology.

Mr Bassett's report emphasized the need for substantial capital investment, and quoted an American computer expert who said that 70 cents of investment is needed to generate a further dollar of revenue,

while 10 years ago only 30 cents were needed to generate similar revenue.

The report also strongly advocated closer links between industry and universities and polytechnics. "A major training and education effort is needed in the United Kingdom in order to take the best advantage of micro-electronics."

An area of work in which new technology is making startling changes is the office, where word processors can handle enormous amounts of information with speed and accuracy. The threat to jobs among white-collar workers is obvious, but manufacturing industry has already seen the advent of computer-controlled machine tools, and robots on an assembly line could dispense with the need for large numbers of manual workers.

Some unions also believe that new technology is a threat to the basis of collective bargaining, a view that is argued by Mr Clive Jenkins, general secretary of the Association of

Scientific, Technical and Managerial Staffs, and Mr Barrie Sherman, the union's director of research, in their book *The Collapse of Work*.

In a discussion document published by ASTMS, Mr Sherman describes the need for unions to be involved right from the start of the introduction of new technology into a company. To strengthen unions' rights to consultation, he calls for a British equivalent to the Joint Regulation in Working Life Act, which became law in Sweden three years ago.

This Act enshrines three principles for trade unions: the right to negotiate on any matter which concerns them; the right to information; and the right to demand that the status quo be applied until agreement is reached.

British unions still have a long way to go but the leadership has at last started making a determined effort to come to grips with the impact of new technology.

David Felton

Areas of research opened to many disciplines

Ultra-powerful machine at centre of network

Over the next 18 months two new machines will be brought into operation that open territories of research hitherto inaccessible to hundreds of scientists. Both machines are at the science Research Council's Daresbury Laboratory in Cheshire, and they will put British universities in the forefront of a wide range of investigations of importance to subjects as diverse as medical research and aeronautical engineering.

The first to come into service later this year is called a synchrotron radiation source: it generates an intense beam of light and X-rays. The special characteristics of this radiation allows novel methods of analysis to be applied to materials that will range from muscle tissue and large protein molecules to metals and crystals of synthetic and natural chemical compounds.

The second machine is called a nuclear structure facility, which describes its job of probing the characteristics of the nucleus of atoms across the whole range of elements from hydrogen—the lightest—to uranium, the heaviest.

The number of research groups preparing to use this apparatus again spans many scientific disciplines. Their interests are as varied as seeking to understand the mechanisms of complex chemical reactions, thus producing data for the subsequent design of more efficient industrial processes, and replicating in the laboratory in microcosm conditions to help astrophysicists to explain strange phenomena observed from ground-based and orbiting telescopes.

Besides these two multi-million-pound pieces of equipment, a third development has been necessary. It is the creation of a network of computers, that has at its centre, at Daresbury, one of the machines regarded as 10 times more powerful than any other computer available. This is a Cray-1.

The Science Research Council computer network, which also embraces the Rutherford Laboratory, near Oxford, interconnects with universities throughout Britain. It is perhaps the best demonstration of the symbiotic relationship that is claimed between computing and science. Advances in many areas of research such as nuclear physics, crystallography and aeronautical engineering have been attributed to breakthroughs made possible by installing a new generation of computers. On the other hand, there are eminent scientists who maintain that these advances are no reason to bestow upon the computer the reputation for being an unqualified blessing in using readily available computer systems as a substitute for creative thinking. This type of dilemma, provoked by advanced technological equipment, is not a new one. The installation of electron microscopes and new types of spectrometers in some university departments has led to pressures to be seen to keep this expensive apparatus occupied. The consequence is that research projects are not necessarily designed for the best scientific reasons.

Considerations of this nature were examined officially before the decision to install a Cray-1 in a network that was already providing a powerful computer service by any standard. That scrutiny was made by a working party of senior scientists at the invitation of Sir Geoffrey Allen, chairman of the Science Research Council. The inquiry was led by Sir Sam Edwards. He has in the past criticized the ability of the computer to deflect a research worker from original thought.

But the assessment of proposed studies with the synchrotron radiation source and the nuclear structures facility showed the need for powerful computer services if the new equipment were to be used effectively. For instance, the analysis of proteins, fundamental to many parts of biomedical research, has reached the state where molecules consisting of up to 8,000 chains of atoms can be pictorially reproduced by existing crystallography.

But, as proteins go, this is a modest level of complexity. The use of synchrotron radiation and a powerful new computer analyzer should enable chains of 100,000 to be understood.

A similar case has been demonstrated for studies in plasma physics which have implications for the design of nuclear fusion reactors and for astrophysicists trying to test theories about the forces at work in distant parts of the universe.

Even a network including a Cray-1 cannot handle the largest of the mathematical models which some physicists working on fusion reactions would like. Dr Brian Davies, the head of Daresbury's computer systems and electronics division, says, "The use of fusion experiments will be able to work on two-dimensional modelling with great accuracy. Ideally they would like to have the computer capacity to work with precision in three dimensions."

Examples of how worthwhile areas of research have been opened, many of them not related to the use of the new Daresbury accelerators, cover oceanography, theoretical chemistry, statistical mechanics and molecular dynamics, and solid state physics.

Before the addition of Cray-1 a powerful network of computer equipment with a wide range of minicomputers, microprocessors and communications stations was interconnected through an IBM 370/165 system. Professor Alick Ashmore, director of Daresbury Laboratory, maintains that the science research groups in the United Kingdom can use more computing power than is available, and there is no need to suppose that the limit has been reached in the design of machines.

Pearce Wright



British Airways' computerized reservation system known as BABS.

Invaluable aid for a complex industry Making air travel free of trouble

Over the past 10 years the increase in the number of people travelling by air and migrating for their annual leave has grown such that European hotels are providing more than six million beds to accommodate the flow of United Kingdom visitors. In the first three quarters of 1978, more than 6,500,000 United Kingdom residents went abroad by air, and during the similar period in 1979, the number was 7,695,000.

According to the Department of Trade (DTI), most of these air travellers went abroad for holidays. Of the 6,500,000 United Kingdom residents went abroad by air, and during the similar period in 1979, the number was 7,695,000.

In the first nine months last year the number going abroad for a holiday rose by 750,000 to 4,898,000, with more than three million on package deals.

The DTI says that in the winter of 1978 a further 1,250,000 flew abroad, just over a million of whom were part of the inclusive tour industry. Although the winter 1979 figure is not yet known, the Association of British Travel Agents and the DTI say that it will be much higher than the 1978 figure, being spurred on by the cheaper air tickets to North America.

It is this increasing trend towards air travel and packaged holidays which has resulted in British Airways pioneering the computerized reservation and services system known as BABS.

It is not just the problem of volume that has made it necessary for the travel industry to become computerized: it is also the complexity of the system, with its multi-choice of destination, and customers demanding that their flight and holiday bookings should be both cheap and reliable. It is a fiercely competitive, cost-conscious and consumer-oriented industry, becoming more so as it grows.

The growth factor is a problem, for no sooner is a computerized system introduced to cope with the processing power required, than it reaches saturation point.

An airline such as British Airways always appears to be in a re-equipment programme. Indeed, the equivalent of 800 man years of development has now established BABS.

It is the largest and most comprehensive passenger service system in the world, handling more than 50 transactions a second at peak times involving more than 15 million passengers.

More than 3,000 screen and printer terminals are linked to the BABS system in 225 different worldwide locations, extending from Oslo and Stockholm in the north to Cape Town and Christchurch in the south, and from Hongkong in the east to Los Angeles in the west.

As well as the high speed telecommunications network, more than 400 further locations are linked to BABS, by way of more than 1,000 teletype machines and the BABS system holds schedules for 265 other airlines as well as British Airways.

BABS also deals with activities outside the reservations work, for example, airlines' flight planning, message switching, passenger check-in, weight and balance, training simulators and hotel reservations.

To view the complexity of the tourist industry consider the tour operator Thomson Holidays. Thomson has a million holidays on offer during 1980. It hopes to achieve sales greater than in 1979 when it sold more than 925,000 holidays.

It copes with about 300,000 booking transactions a year, and the volume of discussion and inquiries far exceeds the bookings figure. It flies out of 22 United Kingdom airports with the computer software system ensure that there is no loss of customer confidence. Customers can choose on average from 700 hotels, 70 flats and tavernas and 30 differing groups of villas.

Thomson must offer a highly competitive service which advances its reputation and its office methods must keep pace with the trade. Like all tour operators, Thomson must forecast demand and apply the selling tactics which make best use of the disposal of the stock while withstanding the pressures of seasonal peaks and troughs.

The advantage to a tour operator such as Thomson of a computerized reservations and services system is the promise of real-time. Thomson's brochure is alive and active on a visual display unit (VDU) at any moment throughout each reservations department in its 10 regional offices.

This makes life more efficient and economic for travel agents who have only to telephone a local office to get an accurate and entire position regarding reservations and alternatives on any one of the million holidays being offered.

Therefore it is vital that the computer software system ensure that there is no loss of customer confidence. Customers can choose on average from 700 hotels, 70 flats and tavernas and 30 differing groups of villas.

provisional bookings to fully

processed holidays. The system should be designed to handle every major task, including the inventory, reservations, documentation, accounting, management information, and so on.

The System Aid Group, a supplier of such software systems to the travel industry, is a powerful team of Nicholas and Jane Waterhouse. System Aid is the leading independent supplier of computer software systems for the industry.

The company's major system, Tourpass, is a powerful real-time reservations administration and accounting system geared to the degree of complexity demanded by tour operators.

Tourpass is far more advanced than an airline reservation system, for in addition to the airline booking, it handles hotel reservations, amendments, cancellations, ticket printing, hotel rooming lists and payment to hotels and airlines. It handles several million passenger bookings each year for major tour operators like Global of London, Sovereign and Enterprise.

Lynda King Taylor

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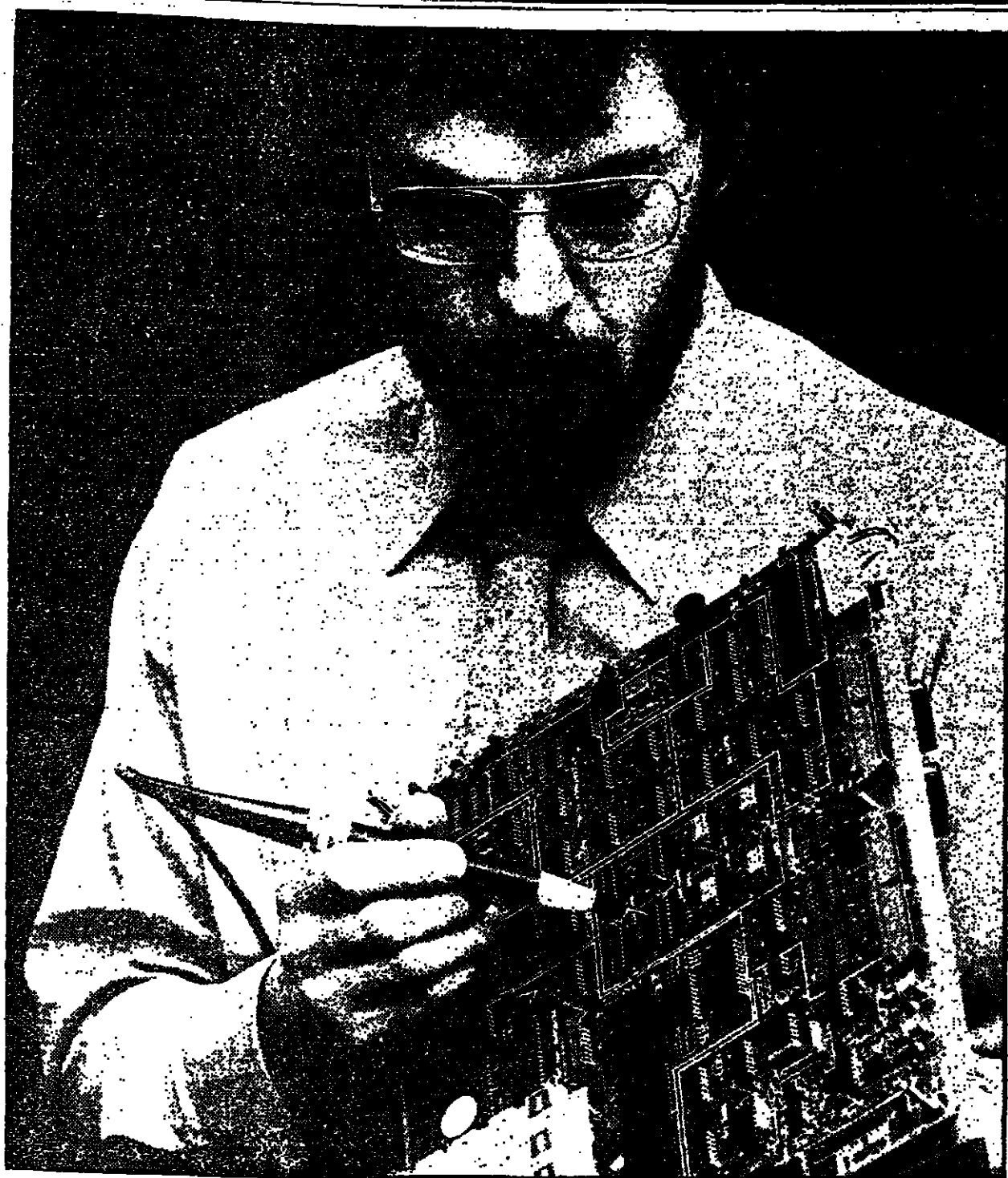
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A student at the Microprocessor Education Centre, Central London Polytechnic. Photograph, Andrew Ward.

Some say schools not producing the right workers

Manpower and skills still scarce

A cursory survey of 70 computer users and manufacturers has shown a continuing shortage of manpower and skills within the microelectronics industry. The skill to design software, equipment and total systems is scarce.

The problem is not new. In fact, the manpower sub-committee of the Electronic Computer Sector Working Party (SWP) of the National Economic Development Council (Nedco) was established in 1977. One of its

tasks was to tackle this skills depression by identifying the most serious labour shortages and highlighting the shortcomings of training and education.

Their report, *The microelectronics industry*, published in 1978 by Nedco, indicates that a high number of employers state serious shortages of engineers, programmers, analysts, computer operators, as well as system designers.

Despite lucrative offers of high salaries—mostly in the £7,500-£12,000 range for technical staff and about £10,000 starting salary for managerial staff—the market place still does not attract the labour required to satisfy the demands of the growth industry.

The SWP in its report was concerned about skill shortages and that any expansion within the microelectronics industry would exacerbate problems unless steps were taken immediately to solve them.

The SWP was keen to see programmes initiated for the recruitment and training of large numbers of qualified people, and to fulfil this recommendation would need government support on a "considerably larger scale than in the past". The report also recommended programmes to develop the awareness and use of microelectronics in the rest of industry.

There are various schools of thought on the reasons for the continuing serious shortage. Some observers say that the source of the problem lies with the schools and that secondary education has not been geared to producing a labour force with necessary skills for the 1980s.

Teachers state in various debates that they have enough on their plate with just the teaching of basic skills, and it is unrealistic to expect the existing school environment to be a breeding ground for future micro-electronic designers and engineers.

Yet other teachers state that computing is too applied to be treated as an academic skill and that programming can easily be self-taught after school.

The technological advances made in education, for example Prestel, which can link its customer to worldwide computer networks through the telephone and television screen, offer scope for this home-teaching process. Such networks also allow the student to cross-question the computer in which the best minds in such fields as systems engineering and software have distilled their knowledge. With Prestel, some teachers say, programme learning and computer sciences can be easily self-taught outside the education system.

How relevant should education in school be to the demands for the manpower shortages highlighted in the SWP report? The answer seems to depend on whether one harkens for traditional education or a more orthodox approach.

Is it likely that traditional education with the direct encouragement of a personal teacher could cope with computer science and micro-electronic learning within existing school syllabuses? If one accepts an orthodox approach that it is better to use the skills of the most gifted individuals for the benefit of all, then are learning aids like Prestel, and an Open University system a more positive way to train these skills?

Dr Gerd Sommerhoff supervises the programmes

of the Technical Activities Centre at the Sevenoaks School in Kent. The school has 900 pupils and at present 100 are fully subscribed members of the Technical Activities Centre, which was set up 15 years ago by Dr Sommerhoff. Any boy with any technical interest who displays initiative, usually in the age group 12 to 13, can be accepted at the centre.

Dr Sommerhoff feels that much of our labour skills problem is based on schools' engineering curriculums. These are seldom creative or intellectually demanding and he illustrates a school mental workshop as a prime example. In this type of setting young people develop the unreasonable belief that engineering is all about being a mechanic or lathe operator. Schools then consistently turn out this type of individuals who the country demands manpower for the electronic age.

Sevenoaks School used to have a ratio of two scientists to one engineer; now that has been reversed. The centre's recruits are intellectually stretched, undertaking some 70-75 projects each year, half of which are in electronics.

One of the biggest single training developments announced so far in the Department of Industry's Microprocessor Application Project (MAP) is the government-financed MEC, the Microprocessor Education Centre, based in one of the Central London Polytechnic buildings at Holborn.

MAP has a £16.7m committed budget and its aim is to alert people to the scope and potential of microprocessors. The scheme will also underwrite the expansion of selected training courses with coverage and can also subsidize the attendance of delegates.

The Department of Industry gave MEC £61,000—the half the cost—and the Central London Polytechnic provided the rest, in a deal in 1979 with an American training company, ICS (Integrated Computer Systems Publishing).

The courses at the Central London Polytechnic MEC cover microcomputers from first principles to the design of complete systems. More advanced courses for non-beginners train engineers to develop microcomputer programmes.

Dr David Collins, president of ICS, said the programme will evolve to provide manpower skills specifically in the areas most affected by micro-electronics like communications, factory automation, military systems and office computerization.

The Department of Industry believes that the spreading of such courses "down the line" to individual industries is essential, but the remaining programmes, like the Polytechnic one, are vital as they are aimed at removing the lack of computing skills, particularly within engineering. This would go some way to prevent some of the skills shortages emphasized in the SWP report.

L.K.T.

Growth of internal systems brings the question...

Can you put a tax on data?

Is it possible to put a tariff on data? How would a Customs and Excise officer measure it? The questions are not academic. They are matters of discussion between officials of the governments and industries of the United States, Canada, Germany, Britain and other of our EEC partners. What sort of a tax would it be? Or to start at the beginning, why?

The issue has arisen as a direct consequence of the growth of computer-data networks, used as internal networks by multinational oil and manufacturing companies for information processing and communications or as global computer service bureaux by specialist companies.

For various reasons the centres of these large networks have been established more frequently in the United States, France and Britain. A lot of data is sent across the North American border to the United States for processing, where it is cheaper to handle. Similarly, there is a transfer from Germany to France. It is big business worth tens of millions of pounds a year.

Against that background the notion is not as bizarre as it sounds at first. But it is startling to find such a basic idea under scrutiny when other projects are in hand with the aim of marrying computer and communications systems for the purpose of breaking down global barriers. One of them, the European Informatics Network, is a scheme for a large network that has been under test on a small scale for nearly four years.

Based on centres in Switzerland, France, Britain and two in Italy, it is a remarkable venture in that the partners in each country

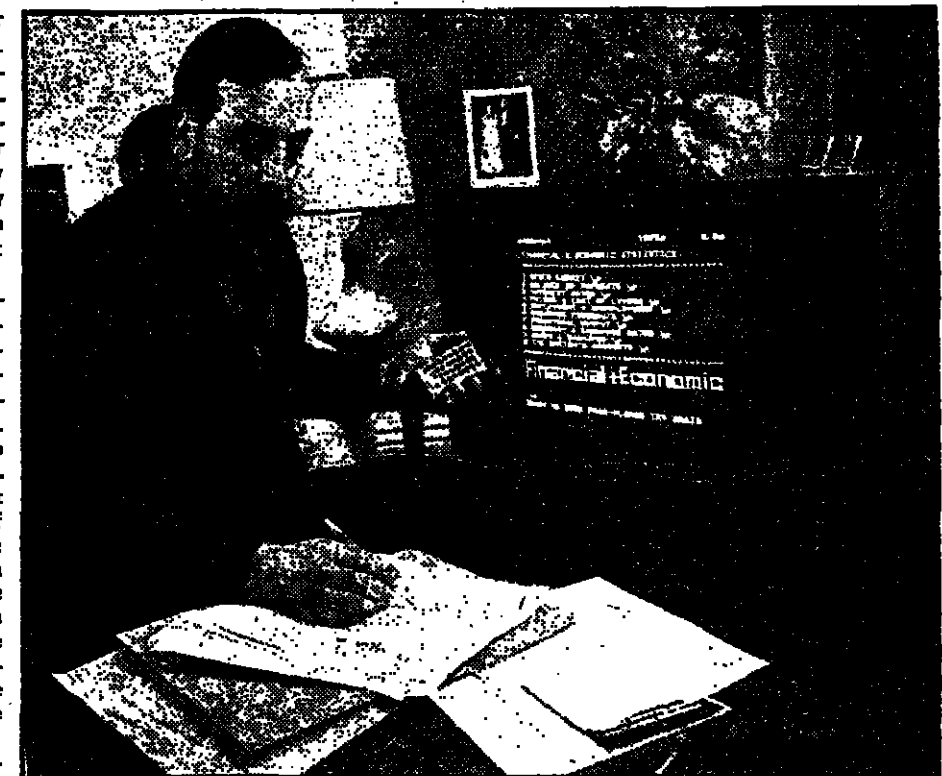
made their own plans for their part of the system. Various data banks throughout Europe can be interrogated by the five main partners, and from many other organizations invited by them to link permanently into the network or join occasionally via the public switched telephone network.

What the European Informatics Network has provided is an interesting meeting point between the computer industry and the telecommunications industry. They have not only had to adapt their technical protocols, so that equipment designed by one sector of the industry will operate safely and efficiently with the other, but they have had to accommodate to each other's attitudes; more bureaucratic on the telecommunications side and more entrepreneurial on the other.

The European Commission is providing a rich catalyst to the project. It is encouraging the use of the Post Office's Prestel view-data service on the network and is considering an automated office systems for some of its own administrative departments linking up.

The complete Euronet Direct Information Access Network for Europe, DIANE, will have more than 2,500 locations for using the network. Such arguments as there are about the network are in the communications administrations, such as the French PTT and the British Post Office, over the choice of standards for transmitting and presenting information services. Like Prestel and the French equivalent Andrope, but that disagreement can be seen as an extension of a much fiercer battle for the electronic telephone exchange market, as administrations throughout the world replace their electromechanical equipment.

In practice the new electronic exchanges are computer-based, switching



The Post Office's view-data service, Prestel, which links the telephone to the television set, enables Mr John Busby, a property company director, to work from home.

money from one bank or finance house to another directly, cutting the high cost of handling of cheques and paper money. A private network being planned for the banks in the City for funds transfer is being revised. It will be some years before the trend towards the cashless society is accomplished with the same idea being carried out at cash desks in stores and restaurants.

The transmission of first class mail electronically is already available publicly on an experimental scale by the use of facsimile transmission. Some company private networks have a more advanced practice, taking advantage of the special characteristics of a computer-based network. This includes such features as composing messages, editing them, storing them, directing them to several addresses, and allowing the recipient to retrieve the information when it is convenient.

The purpose of electronic funds transfer is to send

vice organizations operating international networks, provide customers with facilities that are more or less mail services. They have computer programs which, though not written for handling the text of memoranda or letters per se, contain the commands for manipulating information in the format of mail.

In theory this all seems to add up to a very prosperous future, whichever part of the computer and communications industries get the lion's share of innovation. However, there are caveats. In the early 1970s several eminent forecasters suggested that by 1980 the revenue from machines conversing with each other will have passed people conversing with each other over world networks. In actuality the earning from data transmission over these circuits is believed to be about 5 per cent of voice and other revenues.

In fact, a number of ser-

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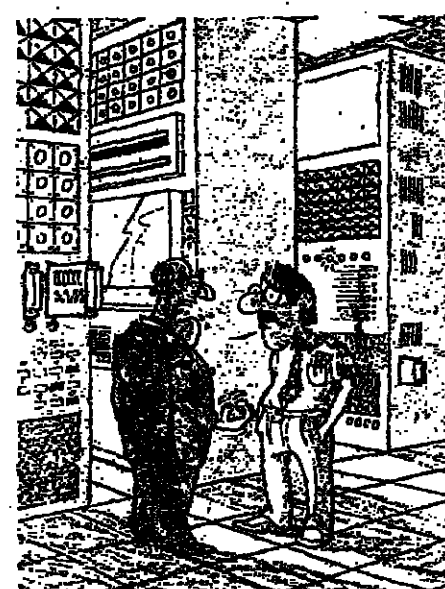
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Microprocessor enters the home in a variety of domestic devices

Chip organizes the toast and coffee

The home has become futuristic with the invasion of the microprocessor. Standard domestic equipment, such as central heating, electric cookers, washing machines, deep freezers, thermometers, sewing machines, vacuum cleaners, roasters, burglar alarm devices, television sets, toys and musical instruments incorporate them.

There are some homes where the computer wakes the occupants while running their baths at the temperature they prefer. While they soak, the chip has organized the toast and coffee and collected the mail.

There is a home in Brussels where the computer cuts the lawn, checks that the doors are secured in the middle of the night and even tells whether occupants are in or out.

The enhancement of products like the kitchen cooker is now a booming business, with electric models having a control console. The brain of the console is a microprocessor with an on-chip memory which stores the program, and various blocks of programmable logic for system interface. This micro-electronic-based design gives far greater and more convenient control over the cooker than any electro-mechanical device.

At the turn of a switch the cook can program two ovens through a 24-hour cycle. Also the cook can control the heat setting of any, or all, of the hot plates and grill, with pan sensing, on, say, two of the hot plates, maintaining sensitive control at low temperatures. Automatic-detection capabili-

ties, digital clock, lamp and audio alarms can also be installed.

Micro-electronic thermostats offer a low-cost, high-performance alternative to the conventional electro-mechanical thermostats fitted to electric space heaters. Often the temperature control can be set at a lower level than would be comfortable with an electro-mechanical device, so saving energy. This is because the electronic switch gives negligible hysteresis and therefore avoids temperature cycling and the discomfort this causes. The switches' rapidity of response enables them to react to temperature rises caused, for example, by a light or a television coming on, or even someone entering a room. Some enthusiasts like Mr Pierre Sarda, the creator of

the advanced home in Brussels, see the main application of computers in running homes and buildings as simply to save energy. Suppliers of automated building controls, such as Honeywell and Johnson Controls, claim savings of 20 to 30 per cent in energy costs, with pay-back periods of 18 months to three years.

President Carter's directive in 1979 to set thermostats at a maximum of 78°F and a minimum of 65°F is alleged to cut energy costs by up to 80 per cent. But temperatures in an area may be higher, or lower, than the thermostats indicate, therefore requiring a computer to achieve accuracy.

Mr Sarda's home is an experiment designed ultimately to test new ideas for automatic control of hospitals, offices and hotels. His company, International Home Systems, spent \$3m over six years to build it. At that price futurism as a potential market is minimal, even among those enthusiasts who want their homes computerized.

International Computers (ICL) provides an answer to combining customers' satisfaction with low costs. It has a "do-it-yourself" section at its Bracknell Reaction Club, which has company support in that ICL allows both sample components, and material at trade prices, to be made available to the DIY following.

Hobby computing is not yet seriously developed, but is at a stage similar to that of the home-made crystal radio sets. Five years ago the car

with the computerized digital dashboard was considered an amusement. Today it is taken more seriously as its value to safer driving becomes apparent. It can give the driver all types of information relating to the car's worthiness, from air pressure to correct oil mix. The Aston Martin Lagonda is developing such a dashboard and it already exists in the firm's latest models.

Originally the Americans thought of a home computer in terms of a central monitoring system controlling various home functions. The chip has invaded little like cookers, leaving little need for a home computer. So rapidly are improvements being made with this invention that although it has never been regarded as a challenge to the jobs being done by a main-frame, or

powerful mini-computer, the situation is changing.

Observers in some semiconductor companies like Fairchild, and National Semiconductor, believe that the processing power of micro-processors could be expected to increase by a factor of 10 each year, which would have dramatic implications for the role of micro-computers, especially in the home. This will encourage the invasion of the chip in standard equipment, especially with the American and Japanese products.

Mr Conway Berners Lee of ICL gave another example of the role of home computers. Mrs Berners Lee teaches mathematics in a girls' secondary school. The American Whizz Kid electronic game at \$11, or the recent arrival of Texas

Instruments' Speak & Spell, would allow her to devote more teaching time to her senior students.

She also teaches programming and could do the program in her home by using a language like Basic on a terminal connected to her local council computer. A better idea would be to buy a small Pet or Tandy system costing about £600, a price which does not include the printer, which is essential. The price would rise to a minimum of £2,500, thus putting the system beyond many people's reach.

Mrs Lee also has household accounts, various family pay cheques coming in, and the books require much arithmetic. If one is also the secretary of the local club, church, or political group, then a home computer is ideal for dealing with sub-

scriptions, mailing lists and deeds of covenant. But again the cost of the printer makes the system too costly for an average family budget.

Recall outlets like Micro electronics will hire out a printer for about £5 each hour, and one could take a cassette to them for printing. This more reasonable costing allows income tax, student grants, school timetables and other household administration to be processed by the home computer.

The cheapness and power of the micro-processor, however, is accelerating change in various household functions and already existing facilities like Prestel make home-computing more realistic.

Lynda King Taylor

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Data Systems PHILIPS

Fantasy becomes a reality

Now 10,000 robots work in world factories

A robot is an extension of the world—the means whereby a machine capable of calculating, in awful abstraction, the rate of growth of a tree, can actually experience that tree by moving around it, looking at it and touching it.

The Czech dramatist Karel Capek, in fanciful vein, coined the word "robot" in 1920. The day of the computer has made that fantasy a reality: there are now 10,000 robots at work in the factories of the world. But Britain, which shone like the morning star at the dawn of the day, has only about 150 of these industrial robots, and has been outshone by the rising sun of Japan, which has 5,000.

Arthur Porter, a research student at Manchester University, holding together the unproving contents of his Meccano set, produced the world's first differential analyser (an analogue computer). His achievement was reported in the June, 1934 edition of *Mechanics Magazine*. In 1971 Dr Michael Larcombe, of Warwick University, in a comparable pioneering venture, built his first robot—the dog-like Arfa. He, too, used Meccano.

This historical perspective illustrates both the dependence of robotics on computer technology (Dr Larcombe is a senior lecturer in the computer science department at Warwick) and also the spirit of adventure—almost of play—in which the original work was done.

Karel Capek invented the word robot for his play *R.U.R.* His fellow Slav, Edward Innatowicz, who is a researcher in the Department of Mechanical Engineering at University College London, likes to emphasize the continuing importance of play in robotics research. Mr Innatowicz, a Polish-born sculptor, is self-taught in robotics.

He believes that mechanical motion is necessary for any artificial system which could be called "intelligent". It is only by motion, by "an active interrogation of the environment", as he put it, that a computer could become aware of itself as an object relating to other objects.

Dr Larcombe's work seems to be moving towards the development of such artificial intelligence. "It gets to the point where, although I wrote the program, I don't know what information the machine has collected so I don't know what it will do at any given moment", he said.

Although the implications of robotics research extend to such exciting frontiers, it

At University College London researchers have perfected a robot arm capable of 3° of movement.

is oriented towards practical—mostly industrial—applications. "We are not looking for the singing-and-dancing machine intelligence," Dr Larcombe said. Mr Innatowicz and Mr Brian Davies at University College London are pioneering the use of electrohydraulic robots to gather information from the environment. They have perfected an arm capable of three degrees of movement and, to raise money for their research (they receive no government grant), they are providing Warwick University with one of these. There it will be mounted on the army bomb-disposal robot which Dr Larcombe has converted for his experiments.

Most of Britain's robots have been imported, but there is one British company—Hall Automation at Watford—which makes them. The machines working in factories today are the world's first generation of robots. They can perform their tasks only in an unchanging environment. Each box one of these autistic robots lifts, for example, must be left for it in exactly the same position as the box it lifted before. Second generation robots will be able to adapt to a changing environment. Britain is already investing in what Mr Tom Brock, executive secretary of the British Robot Association, calls a generation one-and-a-half robot: the American company Unimation is preparing with government help, to build its PUMA robots, which can work in cooperation with each other—at Telford in Shropshire.

The story of talking machines can be said to have begun in play—or, rather, in whimsical speculation.

Sir Charles Wheatstone, who became Professor of Experimental Philosophy at King's College London in 1834, used to wonder how the pronouncements of the Delphic oracle might have been conducted by means of hidden tubes.

He went on to develop a telegraph system and a speech synthesizer. Professor Adrian Fourcin, Professor of Experimental Phonetics at University College London, believes that Wheatstone may have been thinking of combining the two to produce a speaking telegraph. The encoded transmission of speech is a possibility which is only now, with the development of computers, being fully realized.

Human perception and interpretation of speech sounds are matters of pattern processing. Inspired by an American computer which could interpret the patterns implicit in spoken chess moves, Dr Roger Moore, of University College London, has developed a machine which can listen to a problem in arithmetic and then pronounce the answer.

Professor Fourcin believes that the development of speech recognition by computers has broad implications in robotics. "The recognition of patterns for speech could have relevance to work on visual and tactile processing," he said. Dr Michael Duff, of University College London's Physics Department, whose research in parallel image processing could give robots eyes, was one of about a dozen people—including Professor Fourcin and Mr Innatowicz—from different departments at the college who got together last year in an effort to create a "robot centre" where they envisaged this as an interdisciplinary environment for robotics research. After considering their application, the Science Research Council turned the proposal down.

Jim Scanlan

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Main contenders have diverging views

Viewdata faces a testing time

The next 12 months will be the proving year for the development of viewdata services. There are clearly diverging views between the main contenders, with the British Post Office taking the most ambitious approach with its Prestel system. The Post Office has attacked the widest market by transforming the domestic television set from a purely for entertainment into a home information terminal.

The main thrust from the United States, illustrated by the two communications giants AT&T (American Telephone and Telegraph Company) and GTE (General Telephone and Electronics Corporation) is for networks tailored to businesses prepared to pay for access to specialized data bases. A third manoeuvre by the French PTT (post office) under the government-approved Plan télématique will start by providing thousands of telephone subscribers with a viewdata display as an electronic telephone directory.

The Post Office idea of linking modified television sets to data banks has become a demonstrably attractive idea, as witnessed by the number of countries including the United States, Soviet Union, West Germany, Switzerland, the Netherlands and the Middle East, which are preparing trials of various types with Prestel services. There are difficulties because the Prestel concept requires a multitude of organizations to cooperate. For example, the data bases are provided and maintained on a commercial basis by suppliers in the publishing and information retrieval business, and arguments about editorial control are among persistent disputes.

The French approach is novel in that the first phase of Plan télématique extends viewdata services into the public domain, so that part is like Prestel; but it is only offering a specialized service on which the economics can be rigorously monitored, and that takes a least from the book of the services dedicated to business and commercial networks.

In addition there is a better guarantee for the French manufacturers of the market prospects for their equipment. The electronic telephone directories consist of small black and white television screens with a simple keyboard. The terminals replace printed telephone

are. Difficulties because the Prestel concept requires a multitude of organizations to cooperate. For example, the data bases are provided and maintained on a commercial basis by suppliers in the publishing and information retrieval business, and arguments about editorial control are among persistent disputes.

Two pilot schemes, each of 110,000 displays, are being installed, one in Vézir, south of Paris, and the other in the Ile-de-France department of Brittany. On this scale of experiment, large production contracts have been placed with the two leading manufacturers of electronics and telecommunications equipment, Thomson-CSF and a subsidiary of CIT-Alcatel. An estimated price of 300 francs (about £32) for each terminal is less than a twentieth of the price of the adapted British colour television sets.

A decision to extend the service nationally is set for 1982, in which case a second phase of development will come into operation for transmitting electronic mail, using a facsimile transceiver expected to sell for 2,000 francs or more for 60 francs a month.

The most recent example of the more specialized approach has come with the announcement this month of a computerized law service called Eurolex to begin in the spring. It has been devised by the European Law Centre, a subsidiary of the International Thomson Organisation, in conjunction with BOC Datasolve providing the computer facilities.

directories, and they interconnect computerized data bases stored at the local exchanges.

The principal sources will include EEC Law Reports, Fleet Street Reports, the Weekly Law Reports, the Times Law Reports, Stationery Office Statutes in Force, Commercial Laws of Europe and other specialized materials such as human rights, tax, Council of Europe conventions and agreements, and so on. Printing or visual display terminals cost from £700 to buy or from £50 a month to rent. The charging method will be based on usage, with a different rate for searching, browsing or just thinking time while the terminal idles. The average charge is calculated at about £40 an hour.

A statement on pricing policy from the European Law Centre says that the service has been designed to suit equally the large law libraries of practices or corporations and the small practitioner. The only charge that is common to all users is a subscription fee of £1,000 which allows access to the whole range of data bases for one year and includes a full initial training programme and a package of five hours free usage for new clients to practise in their own offices. Thereafter the cost is related directly to usage rather than time.

Pearce Wright

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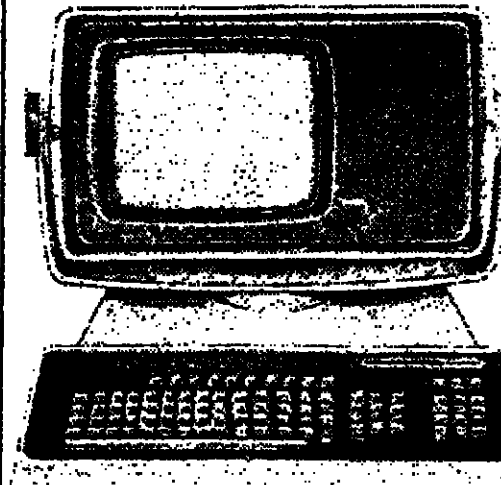
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COMPUTERS

Who will see and use the information?

Private lives will be handled and stored

The inexorable growth of the role played by computers in the gathering, handling and storage of personal information raises issues of considerable importance to the rights of the individual citizen and to the future pattern of our society.

What rights of access should individuals have to information stored about them? How can they correct data they feel to be wrong or misleading? Who should have the right to see and use that information? How can abuses be controlled, especially bearing in mind the ultimate horror of different computers being able to swap data among themselves so that, in effect, everything about every aspect of a person's life can be called up centrally?

The hesitant approach of successive governments over the past decade suggests a failure to appreciate the possible implications of the drive towards computerized data-banking. Certainly, Britain is far behind most other industrialized countries in passing legislation to deal with the problem.

The general topic of privacy has been the subject of a number of private members' Bills since the early 1960s, and computers have been specifically linked to such Bills since 1969. In 1970 the Government set up a committee under Sir Kenneth Younger to look at privacy, including the issues raised by computerization.

Although the committee, in its report published in 1972, found little concrete evidence that computerized data banking had resulted in undue invasions of privacy, it nevertheless recognized that a threat to privacy might arise in the future, and recommended that the Government should set up an independent body for keeping under review "the growth in and the techniques of gathering personal information, and processing it with the help of computers."

It was not until late 1975 that the Government's reaction was published, although, to be fair, the Consumer Credit Act 1974 gave some protection to the consumer about whom information on credit-worthiness was being held, whether on computer or not.

In a White Paper *Computers and Privacy*, Government stated its conclusion that "the time has come when those who use computers to handle personal information, however responsible they are, can no longer remain the sole judges of whether their own systems adequately safeguard privacy. The safeguards must become subject to independent scrutiny, and independent scrutiny cannot be a declaration by law of the standards according to which the adequacy of safeguards in particular systems is to be judged."

The White Paper drew

attention to the fact that much of the information going into computers was regarded by most people as being particularly sensitive: medical, criminal, employment and education records, financial and social services information. "The public is, therefore, entitled to have satisfactory assurances that its data—and especially those that are sensitive—are held and used responsibly, with due regard to accuracy, completeness, relevance, security and confidentiality."

But the Government did not provide any detailed proposals for carrying out those aims, except for saying that there should be legislation to set the standards and establish a permanent agency to oversee them. The task of making specific recommendations was given to a Data Protection Committee, which reported back in December, 1978.

It recommended that there should be legislation to set up a data protection authority, an independent permanent body to ensure that "the automatic handling of personal data in the United Kingdom is carried on with adequate safeguards for the interests of data subjects, and in particular for their privacy."

The legislation would lay down the principles governing the handling of personal information, and all users of the data would have to conform to these statutory principles. The committee listed

them as follows:

1. Data subjects should know what personal data relating to them are handled, why those data are needed, how they will be used, who will use them, for what purpose, and for how long.
2. Personal data should be handled only to the extent and for the purposes made known when they are obtained, or subsequently authorized.
3. Personal data handled should be accurate and complete, and relevant and timely for the purpose for which they are used.
4. No more personal data should be handled than are necessary for the purposes made known or authorized.
5. Data subjects should be able to verify compliance with these principles.

The committee recognized, however, that, apart from following those general principles, different users of computerized information had different needs, systems, circumstances, and objectives, and could not all be forced into having identical procedures. Accordingly, the data protection authority would be given the task of drawing up codes of practice, custom-built if necessary, to be followed by holders of computerized personal data. All users—whether in the private or public sector—would be obliged to apply to the authority, which would then lay down in the codes of practice the conditions under which they performed their work.

The sensitive areas—medical jobs and education—are among those which would require special treatment and separate codes of practice. The committee took the view that there should be no general right of access by patients to information about them, except for routine factual data. In particular, it did not consider that patients should have the right to see what medical diagnosis and prognosis had been made.

Similarly, employees should not have the automatic right to look at management forecasts and assessments of their future performance and career prospects, although information and assessments of their past conduct and performance should be available to be seen by them. Generally, students, or the parents of young pupils, should have access to their education records, the committee felt.

The present Government has not yet made its attitude to these proposals clear. Consultations with interest groups have been carried out since publication of the report, and there does not seem to be any feeling of urgency about the proposed legislation. In the meantime, the possibility of misusing computers to the detriment of individual rights continues to grow.

Marcel Berlins
Legal Correspondent

Identikit picture of criminal emerges

Fall of the 'most desirable' employee

The typical computer criminal is mistakenly looked upon as "the most desirable employee to have" according to studies of computer-related crime in different countries.

The identikit picture has emerged of a highly-skilled young man or woman, aged on average 29. He or she is regarded by their superiors as reliable, honest, bright and highly motivated at work. In general such criminals regard it as a challenge to their skill to beat the system. They are not morally concerned about the possible harm inflicted on the organizations as a result of their wrongs.

The profile comes from an analysis by Dr Donn B. Parker, of the Stanford Research Institute, of reported cases and after interviews with culprits. Another survey, this time in 1974 by the National Computing Centre in Manchester, of British organizations using data processing identified the ideal seeking for fraud. Staff may appear to be hard working but are so for the wrong reasons. They volunteer for overtime duty or stay on the premises well after office hours. They are reluctant to take long leaves of absence in case their trail is uncovered.

The identikit picture was given by Mr Kenneth Wong, in *Computer Security, Risk Analysis and Control*, published by the National Computing Centre. Now the centre has produced what it says is the "first attempt in Britain to present a picture of the wide variety of types of breach of computer security and should serve to stir to action any organization that is ignorant of, or complacent about, or needs to plan for computer security."

The report, by J. A. T. Pritchard, mentions nearly 100 incidents in Britain, in which security has broken down.

Some of the threats come from natural disasters. In 1975 all the teletype terminals at Cranfield Institute of Technology went dead. Rats had chewed through the cables located beneath the false floor. When a fire of pest exterminators had trays of poison, the rats dragged them away.

On August 9, 1977, the boiler exploded below the computer room at Bowater, Scott's, Northfleet, Kent, installation. The centre's re-

port says: "The boiler (125 tons) went off like a rocket through the ceiling of the boiler room, through the data preparation room through the concrete roof and into the night sky (it was 2 am). It came to rest in the ceiling of an office 20ft away. Machines fell through the hole into the boiler room and computer was also covered with debris."

Sometimes there are technical accidents. On December 10, 1976, during fog on the M4 motorway, a series of crashes involved 34 vehicles, in which three persons were fatally injured.

The centre's report adds: "Subsequently a coroner's court inquest decided that a contributory factor had been the failure of the computer-controlled signalling system to effect a change from 50 mph to 20 mph in the displayed speed signs."

In April, 1978 an appeal was heard from a man who had earlier been imprisoned by magistrates for four months for a driving and driving offence. The appeal court reduced the sentence to seven weeks. It heard that a computer error had caused the magistrates to be incorrectly informed that the man had a previous conviction for stealing a riding saddle, though he was abroad at the time.

An analysis of "deliberate threats" (industrial actions) in the centre's report lists 32 disputes involving eight unions in a total of 41 actions, 23 of them strikes.

Another threat was reported as involving students at a polytechnic who were, as part of their computer course, asked to try to break the security of the operating system of the polytechnic's computer. Quoting as its source *Computing Europe*, *New Scientist* end "private communication" the report says: "It is believed that about 20 persons from the computer industry schools and colleges have formed a group and as a hobby break all commercially available operating systems by terminal links, obtain copies of confidential files. One of the pioneers of these 'pirates' or 'cranks' or 'computer freaks' in Britain was a 15-year-old London school boy."

Under the heading "Deliberate threats—fraud", the centre's report lists 10 solo computer abuse from the Stanford Research Institute's international project, funded by the National Science Foundation. He includes physical destruction, intellectual property deception and taking, financial deception and taking, and unauthorized use of services.

During the six years 1972-77, there were on average 75 cases annually, 34 of them involving financial deception and taking, and unauthorized use of services.



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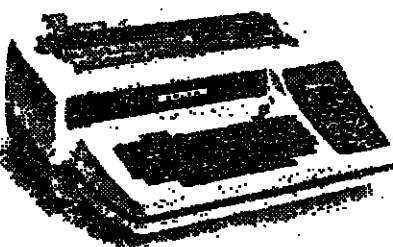
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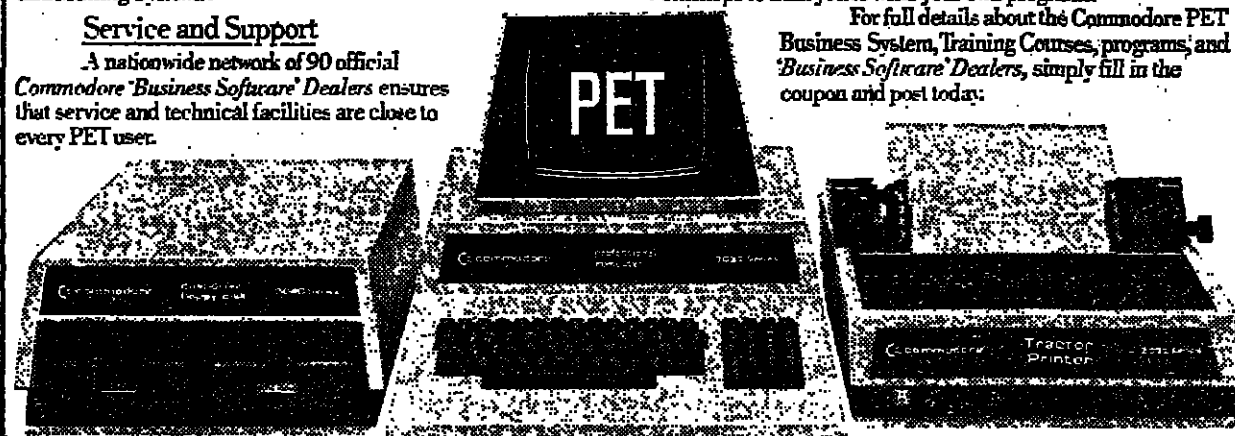
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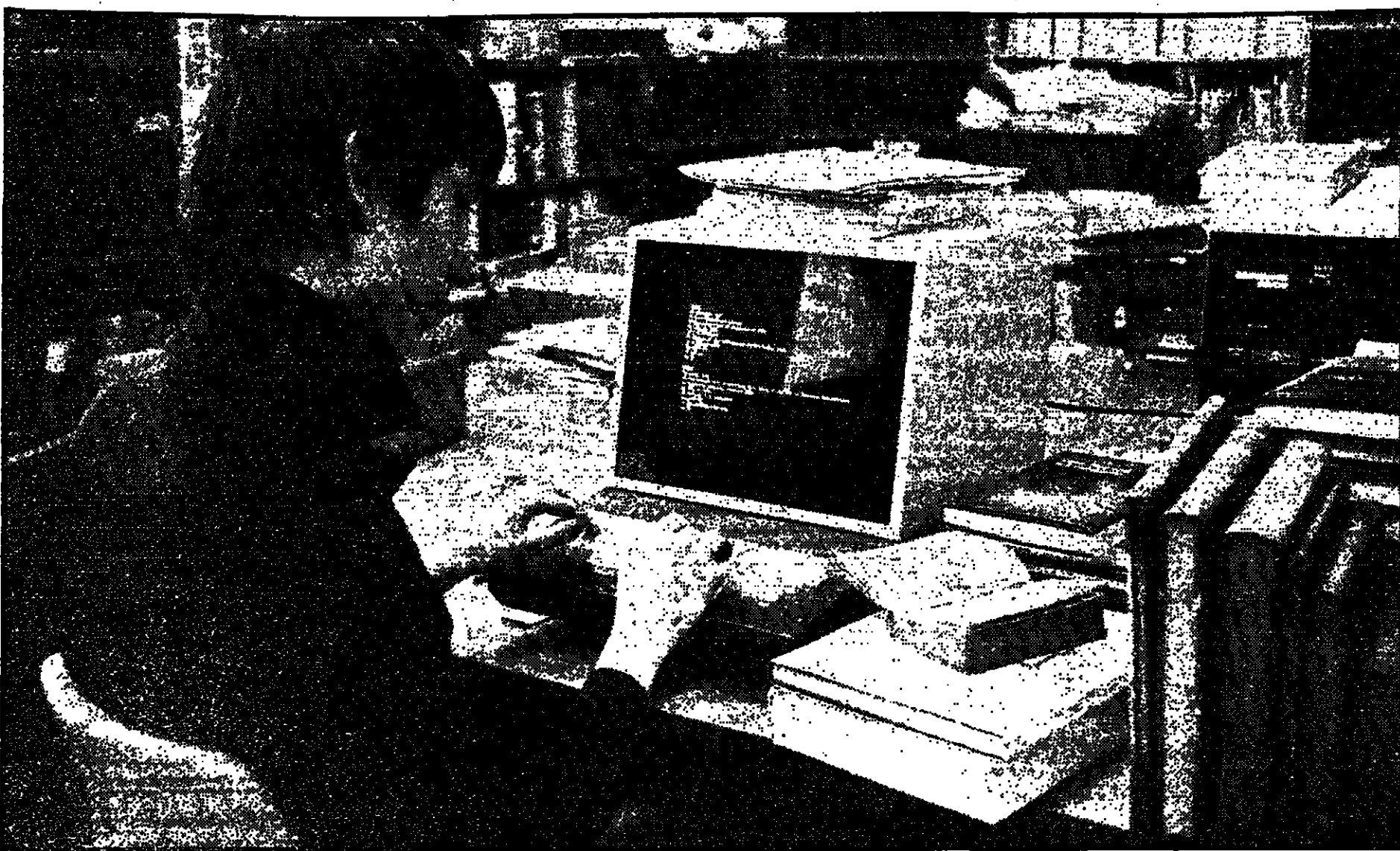
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A computerized indexing and cataloguing system being used at the National Maritime Museum Library, Greenwich.

Cataloguing 500 million items begins

A superhuman memory is growing within museums

The Imperial War Museum was one of the first in Britain to use a computer to keep track of the accumulated collections. So it is appropriate that its wing at Duxford Airfield, 10 miles from Cambridge, should provide a home for the Museum Documentation Advisory Unit.

The role of the unit is to encourage museums all over the country to rationalize their records of holdings, and make use of computers for storing and retrieving information and producing catalogues. One advantage of computerization—it has been adopted by the York

Archaeological Trust in its Viking excavations—is the ability to trace a particular object in various ways. An inquirer seeking an article may know only the catalogue number, or the description, where it was found, its date or perhaps even the donor: what almost everyone wishes to know is the exact location in a museum basement. There are believed to be 500 million items in British museums, and since each item needs to be examined and defined by somebody on the spot, and collections are added to every day, docu-

mentation has a long way to go. The unit at Duxford sprang from two converging operations. For many years curators had felt the need to improve and standardize record-keeping, and in 1967 the Information Retrieval Group of the Museums Association was formed. Later its work was taken over by a body called the Museum Documentation Association.

Meanwhile, in 1974 an officially-funded research project got under way at Cambridge to computerize the contents of the Sedgwick Geology Museum, where Dr J. L. Cutbill was already working on those lines. Scientists have always been accustomed to formalized classification systems in their work.

The two approaches proved of mutual benefit. Moves by museums to simplify the index cards recording their holdings made it easier for such information to be fed into a computer

and printed out in the form of indexes which would be easier to update than conventional publications. Although different subjects, such as fine arts, natural sciences, or history, might need different kinds of card to list the required data, some information is common to all. As one specialist involved said: "The form of the name of a donor should be the same whether that object is a primrose or a painting. A museum index of donors could be multi-disciplinary, correlating information from all subjects."

When the Sedgwick project came to an end, the Museum Documentation Advisory Unit was set up in 1977 with the same team. Dr Martin Porter, director, Mr Andrew Roberts and Mr Richard Light. They had the backing of the country's eight area museum councils and of most of the national museums. Dr Porter has since taken up another post, although he remains a part-time consultant.

Now the unit can provide a computer program package, known as GOS, either for use on the museum's own computer links, or on a central machine at Cambridge University. Because the package has been developed in cooperation with many curators and information scientists, the unit seems to have avoided the error of expecting a computer to do the thinking. Perhaps that is why the letters GOS do not stand for anything.

Fees are charged for this service—higher for bodies not already members of the Museum Documentation Association. Several overseas museums have shown an interest in the work, including some in Australia, and 30 ship-model museums in The Netherlands.

Ultimately, Duxford could be the start of a national index to museum collections, perhaps linked to an EEC databank. Canada is already engaged on a national inventory programme backed by government funds.

But it may be some time before curators are ready to share all their secrets. In Britain the standing commission on museums and galleries has sponsored a study of the application of computers.

Archaeology, with its rapid accumulation of thousands of tiny objects, is a natural target for mechanical indexing. Since July, Jennifer Stewart, of the Duxford unit, has been carrying out research into all aspects of documentation in this field, from what happens on digging sites through to storing of artifacts in museums.

As the work becomes more widely known, the team finds that some new museums are seeking advice before they even open their doors. Several business firms with valuable archives and pictures have also contacted them.

No comprehensive plan has been drawn up in the United Kingdom to use computers for the storage and retrieval of data, and the original total of about £300m earmarked for the United Kingdom micro-electronics sector by the former Labour government has been selectively drained by the present government.

Such National Enterprise Board companies as Immos, Onasac and Nexos, which deal with micro-electronics, the marketing of United

Kingdom software overseas, and office computer systems respectively, have all felt the Conservative scalpel pare away their funding. Two Department of Industry sources of finance could not escape either. The Micro-electronics Industry Support Programme and the Micro-electronics Application Project, which are supposed to be in the forefront of the United Kingdom's shift to micro-electronics from outdated skills, had their collective budgets cut from £125m to £80m last year.

Mrs Margaret Thatcher is perhaps unaware of the real dangers of falling behind in the technological race. She seems like Pooh Bear, only occasionally putting her head into the hollow of a tree to "have a think". Not only has the Government shown a disturbing lack of regard for information technology in general but it appears to be dragging its heels in other areas.

We can now see that the Lightfoot report, a survey of robot and artificial intelligence work in the United Kingdom, was well-intentioned but highly misguided. The survey, sponsored by the Science Research Council and published in 1973, helped to bring important research almost to a standstill.

Essentially, it threw grave doubts on the benefits of following research into the building of general-purpose robots. These same doubts have left the United Kingdom dismally unprepared for the exceptional upsurge of activity in the robot production industry.

Now revived by government and private capital, British interest in robotics and artificial intelligence is nevertheless still feeling its way. The National Engineering Laboratory in Glasgow, the Science Research Council and the Industrial Innovation Centre are all carrying out their separate studies into aspects of the technology.

One of the more interesting projects is that being handled by the production engineering systems company, PERA. This company has been awarded about £450,000 by the Government to help it to set up a specialist unit providing advice and demonstrations of robot equipment to interested United Kingdom companies.

Commenting on the United Kingdom's trailing position in the market place, Professor Wilfred Heppelthorn, director-general of PERA and chairman of the British Robot Association, said there was still a chance for Britain to find a niche and exploit it. The penalties of doing it are less than not doing it at all, he said. "It would be better to import robots produced overseas and use them in the United Kingdom industry than to import the goods made by overseas robots."

If there is any aspect of computer technology that the United Kingdom could be said to excel at it is the writing of software. This is a talent that is much in demand not only here but also by foreign companies so much so that skilled programmers are being tempted by high salaries and excellent working conditions to work in the United States, Europe and the Middle East.

The NEB's Inspec subsidiary promotes United Kingdom software abroad, primarily in the United States, and it has stated that with its initial funding of £20m it should be able to develop a turnover of over £100m a year by 1982.

But we cannot rely on this market to pay our way in the 1980s—it is not by any means enough. Japan began a five-year software development programme last year, and it has already received funds of over \$322m. American analysts have suggested that this kind of investment by the Japanese Government may eventually enable it to overtake giants such as IBM in specific market areas.

Less crucial, but still of importance, are the topics of information privacy, including data protection, and the need for better labour relations. Both of which remain frozen in past attitudes. The recommendation of the Lindop committee that a data protection committee be set up has still not been acted upon, and there has been criticism that this could lead to the United Kingdom falling behind in vital data communications services.

Ultimately, the United Kingdom must question whether the race is worth while. If the great swarms of the future are in technology, then the United Kingdom cannot hope to be an over-all winner. There will be no gracious losers either—the kind of "second-price" Britons have always valued. Self-conscious criticism is something we are good at, something the world has recognized as part of being civilized. This quality will no longer help us to muddle through.

Robin Webster

Information science needs money Britain retarded in artificial intelligence

The nations of the world are engaged in a technological race, and the leaders are those countries such as the United States and Japan that have grasped the fundamental importance of information and the need to develop the means to harness its power. The United Kingdom, however, has shown extraordinary backwardness in responding to the demands of information technology.

Information technology is a concept which takes account not only of computers but telecommunications, word processing, components manufacture and any other activity involving the processing of information.

In the United States, government funding, either directly or through the military, has given that country the dominant world position. In 1979, for example, \$17.4m was allocated to the computer and communications sector by the Advanced Research Projects Agency (ARPA). Its estimated expenditure in the same area for this year has been put at \$23.1m but this is likely to be increased since President Carter's call to Congress for a defence budget of \$1,000,000m over the next six years.

Another large sum, possibly about \$100m, has been made available by the United States Department of Defence for the very high-speed integrated circuit (VHSIC) programme which is intended to develop even faster micro-electronics circuits than those available at present. Results of the VHSIC project will be primarily for military use, but there will definitely be some commercial advantage.

Since the beginning of the 1970s, the Japanese Government has made clear its intentions regarding information technology. Through its Ministry of International Trade and Industry (MITI) which aims to "promote computerization and foster the development of the information industry," the country undertook a four-year programme (ending last year) which concentrated on the development of what are known as very large scale integration (VLSI) techniques—a method of manufacturing smaller but more powerful micro-electronic circuits. The VLSI project received \$117,600,000, and was very successful.

Another \$94,300,000 has been committed to the development of a computer system which will be able to receive and interpret information in the form of writing or the spoken word. No comprehensive plan has been drawn up in the United Kingdom to use computers for the storage and retrieval of data, and the original total of about £300m earmarked for the United Kingdom micro-electronics sector by the former Labour government has been selectively drained by the present government.

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Robin Webster

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Dangers of having to modify software

Users can cut costs by writing their own programs

The development of the silicon chip has involved squeezing more and more circuits onto a single chip while keeping the cost of the chip the same.

The level circuit integration is so high that a complete computer powerful enough to meet the needs of a small to medium-sized business can be built at a cost which is almost trivial.

What still costs money is the rest of the hardware needed to make full use of the computer's power, such as visual display terminals, printers and magnetic disc stores for holding large files of information. Even so, the price of a complete and effective microcomputer system can be as low as £5,000, and £10,000 is about average.

Prices are now so low that they are unlikely to get much lower. If they did, selling microcomputers would not be worth while—marketing costs would not be covered. It is much more likely that the user will be offered increasingly powerful hardware for the same price.

The growth potential for microcomputer sales might therefore appear to be limitless, but inevitably there are problems. The biggest by far is that no computer is worth anything unless it comes with software which can effectively tackle the user's data processing workload. Otherwise the computer is a heap of electronic junk.

In comparison with microcomputer electronics, the software for these machines can be very expensive indeed because the development of computer programmes is highly labour intensive. To make matters worse there is a desperate shortage of com-

petent programmers in Britain and the shortage is likely to persist for some years.

Suppliers of microcomputer systems offer an answer to the software problem in the form of the standard software package, the development cost of which is spread over hundreds or even thousands of sales to different users. There are standard packages for most kinds of accounting functions and for specific kinds of professional users such as solicitors, dentists and estate agents.

But someone buying a computer for the first time is still faced with the problem of making sure that the packages he is offered can handle jobs such as order processing, payroll generation and ledger updating without enormous changes having to be made to the way his business is run. If the package needs to be modified, which is often the case, the customer must check with the supplier that the changes are not going to cost a fortune and that a competent programmer is available to do the job.

So even with standard software packages the growth of microcomputer use in business in Britain looks like being held in check by the shortage of good programmers. If it is not, then there are going to be thousands of unhappy users with systems which are worse than useless.

One way of alleviating the problem is to teach the user himself how to program, and an increasing number of business staff whose main job is something other than programming are going to become reasonably capable programmers in the future. "Basic" is the name of a programming language which is one of the easiest to learn and which is available on

most microcomputers. One well known microcomputer supplier, Microsense of Hemel Hempstead, is trying to set an example to its customers by encouraging all its own staff—from senior managers to clerks—to learn how to programme in Basic. Any member of the staff can borrow a desk-top computer to teach himself or herself Basic at home.

Another hopeful sign is that many children are learning to use Basic at school either on the school's own microcomputer or on a terminal linked to a bigger computer.

Unfortunately Basic is not always the ideal language for writing programmes to handle commercial applications because the instructions it offers for manipulating large files of data are not nearly as effective as those provided by Cobol.

Cobol has been the most successful commercial programming language since the advent of computers and will continue to be so for a long time. The problem is that Cobol is much less easy to learn properly than Basic and is very much a professional's language. It was used, for example, by the software company, Computer Analysts and Programmers, to write an extensive range of commercial microcomputer packages.

While the cost of microcomputer electronics continues to fall and performance to get better, the future of the mechanical parts of microcomputer systems is less certain. No microcomputer system can be used successfully in a business without a printer to put out many hard copies and for the foreseeable future it appears that the user will have to continue to use mechanical matrix printers that employ expensive precision engineering—and

require regular maintenance. The rotating disc stores used in most microcomputer systems at present employ low cost exchangeable diskettes that are characterized by their low capacities and the slowness with which data can be accessed by the read-write head. Over the next few years diskettes stores will be superseded on many microcomputer systems with units incorporating fixed discs.

These units offer much higher capacities and faster access times than exchangeable diskette units mainly because the read-write head can be positioned with much greater accuracy. However, one problem not yet satisfactorily solved is the need for some form of low-cost backup storage to load files quickly on to the fixed disc.

One optional feature that should become available with most microcomputer systems over the next few years is an interface for the Post Office's on-line information service Prestel, which is scheduled for launching soon. Such an interface, called Appletel, is already available at a cost of £595 for the Apple II, one of the best known desktop microcomputers.

Most microcomputer systems are based on a single-chip microprocessor manufactured by one of a small group of mainly United States-based firms. Three of the most prominent are Intel, Zilog and Motorola. It is likely that one or more of these firms will introduce a microprocessor one day that can execute the instruction set used by IBM's large-scale computers. This is an exciting prospect because a wealth of software exists for IBM computers covering all sorts of commercial applications.

Keith Jones

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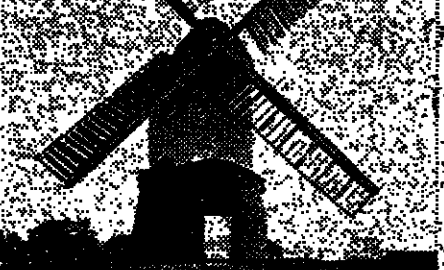
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MR HAUGHEY ON IRISH UNITY

Mr Charles Haughey, proclaimed leader of Fianna Fail in December and thus Prime Minister of the Republic of Ireland, attended his coronation on Saturday. No crown of course, just ovation. His party's Ard Feis (party conference) is too prosaic a rendering provided the setting for that ceremony and the occasion of his first major policy speech as Taoiseach. All aspects of government policy were touched on including policy towards Northern Ireland, a subject on which Mr Haughey had been darkly silent since, when Minister for finance in 1970, he was charged with illegally importing arms destined for the IRA, and acquired.

Since the impetus, if not the whole explanation, of the party coup which unseated Mr Jack Lynch derived from the supposedly more red-blooded republicanism of Mr Haughey, his first utterance on Ulster has been awaited with interest. First the similarities with what Mr Lynch used to say. Mr Haughey deprecates the activities of the Provisional IRA: a solution "can only come through political action. All but a tiny minority understand that violence can never bring a solution and that it serves only to perpetuate division and hatred". That corresponds to what Mr Lynch and every other parliamentary leader in the Republic has been saying; but there is conspicuously absent from it that urgent tone of moral condemnation which rang through Mr Lynch's speeches. However, when it came to warning the IRA not to try anything

on in the Republic itself, Mr Haughey was no less minatory than his predecessors.

Like Mr Lynch, Mr Haughey had a special word of sympathetic understanding for Ulster Protestants. "I have lived among them as a boy: I admire their virtues..." Yet Mr Haughey's most significant borrowing from his predecessor is this. In 1975, when in opposition, Fianna Fail called on the British Government to "declare Britain's commitment to implement an ordered withdrawal from her involvement in the six counties of Northern Ireland". Mr Lynch transmuted that into what a good thing it would be if the British Government were to say that the unification of Ireland by agreement would be in the best interests of everybody. There must have been many Fianna Fail supporters who looked to Mr Haughey to reinstate the original, tougher version of party policy. What he said on Saturday was pure Lynch. No mention of withdrawal. No demand. "In my view", he said, "a declaration of the British Government of their interest in encouraging the unity of Ireland, by agreement and in peace, would open the way towards an entirely new situation in which peace, real lasting peace, would become an attainable reality."

So much for the continuity. Now the differences. There are two. One is the urgency with which Mr Haughey presents the Northern question. The other is the very secondary importance he attaches to the current, and by implication any, attempt to settle the internal arrangements of the British province of Northern Ireland in a way that is agreeable to both communities there.

Mr Lynch had come to place satisfactory internal arrangements for Northern Ireland in the forefront of policy. Unification he hardly foresaw within his lifetime. Mr Haughey will have none of that. For him Northern Ireland is a society on the verge of deterioration beyond recovery. Time is running out. The need for a solution becomes increasingly urgent.

Should the present Constitutional Conference help to ensure civil rights and equality for all the people of Northern Ireland and to ensure also that security operates impartially, then so much the better. But the conference cannot provide a conclusive settlement... Northern Ireland as a political entity has failed and a new beginning is needed. The time has come for the two sovereign governments to work together to find a formula and lift the situation on to a new plane... No settlement can be contemplated now which merely sows the seed of future discord.

In other words, start talking Irish unity now. That is Mr Haughey's analysis. And his policy? "This government sees Northern Ireland as the major national issue and its peaceful solution as our first political priority." First priority in importance perhaps, but not in time, not when that part of his speech is taken in the context of the whole. Mr Haughey takes a very serious view of the immediate economic condition of his country, as well he may. There are many and complex matters connected with it demanding the attention of his government. He also has a general election to face within a couple of years, and a lot of electoral ground to make up. His immediate priorities must be south of the border. The period after that election, if he wins it, may be another story.

BREAKDOWN IN LEBANON

On February 3 it was reported from Damascus that the central command of the national progressive front (Syria's ruling coalition) had discussed, at a meeting chaired by President Assad, "the possibility of redeploying the Syrian forces in Lebanon to afford them better prospects for training and for performing their basic security tasks as an Arab deterrent force". Almost simultaneously it became known in Beirut that what had in fact been decided was that Syrian troops would be withdrawn from Beirut and its suburbs and redeployed on the other side of Mount Lebanon, in the Bekaa valley.

This decision provoked panic in almost every political group in Beirut and prompted a stream of visits to Damascus by prominent Lebanese and Palestinian leaders imploring President Assad to change his mind. All he would agree to was the postponement of the withdrawal "for a few days", but so far it has not been put into effect. Meanwhile anticipation of it has caused a rapid rise of political tension both in Beirut itself and in the south, where the ceasefire between Major Haddad's Israeli-backed militia and the Palestinian guerrillas has broken down. No clear explanation of President Assad's decision has yet been given, but a great variety of motives has been suggested. He could have been afraid that Israel was about to launch a thrust up the Bekaa valley, effectively encircling Damascus and

cutting his forces in Beirut off from their base. He could have been obliging his Soviet allies (Mr Gromyko had just left Damascus) by provoking an outbreak of fighting in Lebanon which would revive Arab animosity against Israel (ergo against the United States) and so break up the anti-Soviet Muslim front which had formed over Afghanistan. Or he could have wished to divert attention from the worsening situation in Syria itself, where the assassins of the Muslim Brotherhood, apparently benefiting from at least the passive connivance of the Sunni Muslim majority, are now striking regularly at Soviet military and civilian advisers as well as members of the President's own Alawite minority and at prominent Sunni supporters of his regime. Or again he could have been seeking to concentrate the minds of the different Lebanese factions on the need for a political solution to their differences, in preparation for an eventual withdrawal of Syrian troops from the whole country. He could even have been preparing the Palestinians for some new move towards a peaceful settlement with Israel by reminding them of the extent to which their position in Lebanon depends on his protection.

Whatever his real motives (and they could be a combination of several or even all of the above), the announcement has served to draw attention to the very unsatisfactory situation

which persists in Lebanon more than three years after the war there officially ended. The country is divided into at least four different zones of political and military control. The Lebanese state represented by President Sarkis is theoretically recognized as the lawful authority by everyone except Major Haddad. But the Christian "Lebanese Front" regards it as hopelessly pliant under Syrian pressure, while the predominantly Muslim "National Movement" accuses it of rebuilding a predominantly Christian army.

In fact the state and its army remain the only hope of rebuilding a united Lebanon. They should be strengthened, and their authority should be accepted in practice as well as in theory. The National Movement and the Palestinians, if they are not to be responsible for the partition they claim to be fighting against, should accept the gradual replacement of the Syrian deterrent force by the Lebanese army. Equally, the Israelis, if their proximity to Lebanon is to seem hypocritical, should withdraw support from Major Haddad so long as he does not accept the authority of the Lebanese state and allow its army to be deployed in his zone. Meanwhile the United Nations force in Lebanon is clearly inadequate to preserve the ceasefire in the south and should be strengthened.

will and must, it really amounted and still amounts to Conservative leaders' political and social fitters after the Labour landslide of 1945. How could the Conservative Party recover the working class electoral base necessary if it were to return to power?

There is a great deal in the Gilmore thesis that we may all agree with. Nobody either wants, or could get if they did want, a society divided at the roots. Nor does anybody now believe that such a government would be democratic. But if general elections mean anything, they mean that a voting majority has accepted one view of society's needs rather than another; and it happens that Mrs Thatcher and her views of society's needs are in line with the remarkable swing of working class votes, prevailed on May 3, only 10 months ago.

In essence, Sir Ian Gilmore now says that Mrs Thatcher and her colleagues, having been elected on one clear prospectus, must find another prospectus that would be more attractive to the electorate if they had a general election today. In other words, Mrs Thatcher, her Cabinet, and Conservative backbenchers must be prepared to make an about turn and head North instead of South, as every government since 1945 has done.

For him it is the business of government to intervene to ensure an economic and social equilibrium, to keep society stable and, by implication, to superimpose corporatism on a general election mandate that has become inconvenient or undesirable. All duty is on the Government; none is on the people.

It is a seductive argument, seductively developed. Since 1945 every government has used out money to pay blackmail, not only to trading unions but no less to leading industries and to powerful regions, districts, or counties, coal, shipbuilding, steel, and car production. The Gilmore argument, if put to the people now, would probably win the day. It is the easy way out. Trans run mail is the easy way out. Trans run mail, electric power comes back on, docks are cleared, garbage is shifted, turn the tap and water runs, and the life returns to normal, and the people apparently value

normality and pronounce blessings on any government that gives it to them. For nothing fundamentally changes. One blackball payment has to be followed by another.

Because she fought a camera and television election, Mrs Thatcher said surprisingly little during her April-May campaign, but what she did say came as balm to the soul of most voters. She spoke for itself. She said government would not be the last home for lost causes and failed industries. Government and country would live within their means. Industry that could not stand on its own feet would be sold. Those who voted liked what they heard, not least the promise that the power of trade unions to bring down three democratically-elected governments in nine years (1970, 1974 and 1979) would be somehow turned.

To be sure, it's easier said than done. That is why Mrs Thatcher and the Government have lost the initiative in presenting their case. You cannot make much of a policy of non-action, of staying on the sidelines. Mr William Sirs, the steelworkers' leader, for example, has made a far more plausible case in public than anybody within the British Steel Corporation and the Cabinet.

The fact is, of course, whatever the failures of government policy, presentation and advocacy, that a large chunk of the public sector in the United Kingdom either pays itself too much or produces too little. Mrs Thatcher and the so-called industrialists are determined to drive home the lesson. Sir Ian Gilmore and the softer men, who of course fully supported Mr Heath's U-turn between 1970 and 1974, want to avoid any confrontation that threatens, partly out of social compassion, partly out of un-Thatcherish guilt feelings dating back to before the war, partly out of electoral calculation.

Why, there are even Conservatives today who like Mr Wedgwood Benn begin to talk of import controls to protect Britain's failing industries. Once you accept the implied Gilmore thesis and work it to the logical end there is no conclusion to the blackmail we should all have to pay.

The wealth of nations

From Mr Keith Jones

Sir, One of the charges laid against small village schools is that they are uneconomic. In the present climate of financial cutbacks it is one of the words which our masters use to justify their policies. However, we should be wary of accepting other people's words, for by doing so we tacitly accept the premise of their argument. Businessmen understand the word. Financial inputs and monetary returns, profit and loss, such is the nature of their game. If I were a businessman I should expect my monetary return to exceed the financial input, otherwise my business would be uneconomic.

Large schools cannot be so described. A more honest statement would be that it costs more to educate a child in a small unit than in a large one.

Similarly it costs more to lay on a supply of electricity to villages; it costs more to deliver a letter to a village than to a town; it costs more to be connected to the telephone service; it costs more to be visited by the doctor.

Are we therefore to conclude that these uneconomic units, following the publication of Mrs Castle's diaries.

Arthur Scargill and similar figures who fear the present Employment Bill because they recognize the special threat it poses to their tactics, are searching for a cause to rally the trade union movement behind them, so far with little success. Banning all secondary action would give them that cause, and to what end? After all, employers have traditionally shown considerable reluctance to prosecute where industrial relations issues are paramount. Indeed, it is unclear from the account given of the Times's recent troubles whether management failed in that case to make their employee's union representatives to court because they believed that an action would fail, or because industrial relations advice indicated that, win or lose, such a step would make the dispute both longer and more bitter. Certainly, the CBI do not want the Government to go this far now, so it must be presumed that few employers would use such contentious new powers.

No one suggests that we should die because the cost of medical services is uneconomic, or that we should burn candles because it is uneconomic to provide electricity, or that we should breed pigeons to substitute for the uneconomic cost of delivering our letters, or that we should take a course in voice projection because it is uneconomic to provide us with a telephone. So why are village schools described as being uneconomic simply because it costs more to educate a child in a small unit than in a large one?

The products of agriculture benefit the entire population of the United Kingdom. Agricultural communities should not be penalised for their smallness by being treated as uneconomic. Local councils would better serve the communities they represent by spending less time issuing closure notices and instead in demanding a share of the rate support grant commensurate with the needs of the pattern of life which contributes so much to the nation. Yours faithfully, KEITH JONES, 17 Steep Hill, Lincoln.

Ulra and Matapan

From Dr G. DiVita

Sir, A current BBC Television series tells the story of Cynthia, Miss Emily Elizabeth Thorpe. According to the BBC, in 1941 Vice-Admiral Alberto Laís, the Italian Naval Attaché in Washington, gave the Italian Navy's operational cipher, thus enabling Sir Andrew Cunningham to read Italian radio signals and win the battle of Matapan (R. Deacon and N. West, *Spy*, BBC Publications, 1980, pages 76 and 77). This is utterly false. The Italian intelligence was supplied to Sir Andrew by the interception and cryptanalysis of Italian Naval Signals.

In 1941 GC and CS (Government Code and Cipher School—the organization to cryptanalyse enemy signals) was based in Blechley Park in Buckinghamshire. Here, a building on the estate, "The Cottage", housed ISK (Intelligence Service Knox, sometimes called Hilit Service Knox). The main task of this team headed by Alfred D. Brien was the analysis of Italian intercepts.

The Italian Navy used a type of Enigma ciphering machine somewhat different from the standard German Enigma—it had four rotors and no plug board. It was classified, but the narrative is precise. In March "The Cottage" read the Italian Navy's orders for an operation in the Ionian Sea. The crucial message giving the date of the operation was intercepted by the British. On March 25, in the night of March 28 off Cape Matapan three British battleships met and destroyed an Italian cruiser squadron—three heavy cruisers were sunk, 3,000 sailors killed. Italy's prestige of an encounter missed haunting perplexity and long debate.

Intelligence produced by GC and CS was code-named Ultra. To protect Ultra, information gained by cryptanalysis was shrouded in tales of traitors and spies, and well within this mythology is Cynthia and Laís's story. Treason in bed and death at sea made a libretto which sold well in Britain—the Latin melodrama of seduction and tragedy—and Italy. The neofascist explanation for defeat. (A. Trizzino, *Navi e Poltrone*, 1953; H. M. Hyde, *The Quiet Canadian*, 1962; D. Kahn, *The Codebreakers*, 1966; H. M. Hyde, *Cynthia*, 1967; A. Trizzino, *Traditori in Divisa*, 1974; W. Stevenson, *A Man Called Intrepid*, 1975.)

Alberto Laís was shot shortly after the war. In 1967 his family sued H. M. Hyde, a libel action on behalf of the dead being allowed in Italian law. After lengthy examinations of witnesses and documents the Court in Milan brought a verdict of guilty. The Court of Appeal upheld the conviction. On the Cynthia canon, incidentally, Mr. Gaston Henry-Hay, the French Ambassador in Washington in 1941, successfully sued Mr. H. M. Hyde for libel before Mr Justice Megaw, Queen's Bench Division, March 15, 1966.

According to the first published account on Ultra, the Italian plan was read by breaking the German Air Force Enigma. Later publications conclusively stated that the Italian Naval Enigma had been directly attacked and broken. Arguably the controversy on Laís and Matapan was for years Italy's devious affair and a source of political unease about possible present espionage by Nato allies. Yours faithfully, DAVID PALMER, Chaplain, All Saints' Anglican Church, via del Babuino 153B, Rome.

Trade unions and the rule of law

From Mr David Madel, MP for Bedfordshire, South (Conservative)

Sir, Our extraordinary range of establishing trade union rights by means of providing immunity from various legal actions makes movement in this area much more difficult than is generally appreciated, for in attacking abuse by removing an immunity, the legal foundations of other forms of industrial action which are widely regarded as legitimate may also be disturbed.

Removing immunity for all secondary action, for example, would render vulnerable every sympathetic strike. When the unions feared, wrongly as it turned out, that this would be the consequence of Baldwin's 1927 Act, even such a moderate and reasonable trade union leader as Ernest Bevin was willing to advise his executive to take sympathetic action in defiance of the law. It is strange, incidentally, that your editorial (February 9) should place the man who presided over that legislation in the same camp as Mr Callaghan, whose role in undermining the 1966 Labour Government's efforts in this area is farce most of the public eye, following the publication of Mrs Castle's diaries.

There he argued that in modern industrial society an individual had no rights except "collective" rights, ie, as a member of a collective organization. Carried to its ultimate conclusion, this meant that you do not actually harm an innocent third party (whether by driving him into bankruptcy or liquidation or just slashing his tyres) because harming someone involves interfering with their rights; but if they have no rights then by definition they are not being harmed.

Once you can get into that stage of mind then it is easy to see how you can characterize as "golden" a formula which to a less fond eye might seem somewhat bloodstained.

Yours faithfully, RICHARD YORKE, Gray's Inn Chambers, Gray's Inn, WCI.

Global rivalry

From Mr Vasily Stepanov

Sir, How far, you wonder (editorial, February 6), has the Soviet Union grasped the point that "global military rivalry is not only a dangerous waste of resources but is also incompatible with constructive East-West relations in other spheres?"

I feel there is little real cause for speculation here. The facts show that the Soviet Union understands the point perfectly well, and has always retained a complementary detachment in international relations with détente in the military field.

The USSR has come forward with dozens of peaceful initiatives and constructive proposals, all aimed at improving the international situation, cutting down armed forces and arms and developing confidence between countries belonging to different social and economic systems.

Last year, for example, speaking in Berlin, Leonid Brezhnev announced several peace initiatives involving the withdrawal of a considerable number of Soviet troops and quantities of Soviet equipment to the German Democratic Republic and promised a cutback in the present number of nuclear missiles stationed in the west of the Soviet Union, provided that none of the new types of US missiles were to be deployed in Western Europe.

The NATO countries refused to accept the Soviet proposals. This must inevitably lead to a new round of "military rivalry", and not on the initiative of the Soviet Union. A look at the way military rivalry has developed in the East and West in the past shows that the Soviet Union has always had to catch up with the USA.

The USA, for example, developed atomic weapons in 1945, and the USSR in 1950. Medium-range missiles appeared in America in 1953 and in the USSR in 1959. The USSR's intercontinental missiles appeared in the United States in 1956 and in the Soviet Union in 1957. Nuclear-

This means that a major overnight change in trade union law now would provide no panacea for the nation. Consequently, the Cabinet have surely been wise to opt for a more cautious approach to the question of legal restraint in this field, rather than upset the delicate balance of Mr Prior's Bill. Yours truly, DAVID MADEL, House of Commons, SW1, February 15.

From Mr Richard Yorke, QC
Sir, Lord Wedderburn (February 15) allows his devotion to the trade union movement to colour his logic. If his "alternative road to greater industrial peace" is by "genuine conciliation... around negotiating tables" then it is simply irrelevant to license either the violence of mass picketing or the infliction of damage and destruction upon innocent third parties who cannot participate in any conciliation or sit at any negotiating table.

I am not alone in being sometimes awestruck by the way a lawyer of Lord Wedderburn's ability can contemplate with equanimity, even enthusiasm, such harm done to the innocent. The explanation of his thought process is probably to be found in an address that he gave to an Inner Temple seminar at Cumberland Lodge early in 1975.

There he argued that in modern industrial society an individual had no rights except "collective" rights, ie, as a member of a collective organization. Carried to its ultimate conclusion, this meant that you do not actually harm an innocent third party (whether by driving him into bankruptcy or liquidation or just slashing his tyres) because harming someone involves interfering with their rights; but if they have no rights then by definition they are not being harmed.

Once you can get into that stage of mind then it is easy to see how you can characterize as "golden" a formula which to a less fond eye might seem somewhat bloodstained. Yours faithfully, RICHARD YORKE, Gray's Inn Chambers, Gray's Inn, WCI.

powered submarines were put into service in the US Navy in 1953 and in the Soviet Navy only in 1962.

The US could be accused. In all cases, it was the USA that initiated new weapons systems, and in the interests of its security the Soviet Union has had to meet the United States challenge. It was not, therefore, the Soviet Union that initiated "military rivalry".

The United States is not surrounded by Soviet military bases, yet the United States military, air and naval bases stretch almost for the whole length of the borders of the Soviet Union and other socialist countries. Apart from that, certain elements in the United States never stop trying to bring down governments friendly to the USSR in neighbouring countries and to install hostile regimes there.

In the circumstances, the point presented in your editorial, I feel, should be made not to the Soviet Union, but to the United States. As for "constructive East-West relations", it is Washington that constantly calls for colder, harder relations and engages in actions likely to bring this about.

Yours sincerely, VASILY STEPANOV, Novosti Press Agency, Pushkin Square, Moscow.

Olympian detachment

From Lord Abercromby

Sir, The Olympic Games surely need not be held rigidly every four years. It is obviously impracticable now to move the 1980 Games to another place. But if they must be held, why can they not be deferred until next year, and be held in another place, except perhaps the jumping events, which would need to be held in Leap Year?

Yours truly, ABERCROMBY, 8 The Sanctuary, Westminster, SW1, February 15.

Grandeur that was Rome

From the Reverend Canon D. H. Palmer

Sir, I have just been hurrying round central Rome (though I live there) photographing some of its most treasured monuments for the last time.

Trajan's Column is about half gone; that of Marcus Aurelius in the Corso about one third. In the Forum, the Arch of Septimius Severus is still half exposed, the division being vertical in this case. Near by, the noble portico of the Temple of Saturn is entirely masked from view. And beside the Colosseum workmen are today laying a new concrete apron round the base of the fenced-off Arch of Constantine, round whose great bulk will be wrapped the biggest shroud of all.

Lovers of Rome should rush here if they want to see *dans le style* such a world-class monument as the last before it is too late. They have already practically missed the boat with the others.

People better placed than I must find out and evaluate the reasons for the encasing of these works of classical architecture in smart black scaffolding with brass-coloured clamps which will soon receive, one hears, a polythene cover.

I write simply to mourn the passing, for the foreseeable future, of the intended aspect of these great pieces; and I am sorry for the multitudes of future visitors who, staring at these Meccano monsters, will be able only to imagine how the now hidden white stone looked for some two thousand years, especially against the blue of the Roman sky.

Yours faithfully, DAVID PALMER, Chaplain, All Saints' Anglican Church, via del Babuino 153B, Rome.

A word for the Vikings

From Dr David Abulafia

Sir, In his contribution to your supplement (February 14) on the Vikings, entitled "Traders, not raiders", Thor Heyerdahl falls victim to the very ideas he seeks to correct. He takes the colourful King Sigurd and calls him "a typical Viking in spirit"; he then shows that he was a raider rather than a trader. And he retells a Norse tale in a mixture of real history and ancient fable.

King Sigurd did not find that Sicily, as ruled by a Newengland called Duke Rodger; he visited Sicily or Apulia and apparently met a Norman prince—the future King Roger II or his cousin Roger Borsa, Duke of Apulia.

What is interesting is that a Norse writer, Snorri Sturluson, described the Normans in Italy as members of a Scandinavian community; and this implies there was some remote memory of the fact that the descendants of those Norsemen who settled in northern France later became involved in the fast-flung conquests south of Rome. Moreover, Sigurd did not confer a crown on a Norman duke, as far as we know. Roger II acquired his crown rather later, in 1130, with the assent of his Norman and Italian barons and of Pope Anacletus II.

On the other hand, King Sigurd's ships were remembered with gratitude by the Christian conquerors of the Holy Land, and the king himself made a deep impression on those who met him—more perhaps as a man of martial virtue than as a man of spiritual depth. Yours faithfully, DAVID ABULAFIA, Gonville and Caius College, Cambridge, February 14.

From Mrs John Kerr

Sir, Michael Frenchman's article, page 12, *The Times* (February 9), Viking warriors (in 793 AD) with their horned helmets? The Anglo-Saxon cemetery at Finglesham in Kent excavated by Mrs Sonia Hawkes produced in 1964 a gilt bronze buckle bearing the figure of a man wearing a horned helmet. Mr Ronald Jessup in his pamphlet, "Anglo-Saxon Jewellery", mentions that the buckle "seems to belong to the early traditional symbolic heathen religious art, versions of which were current in Northern Germany and Sweden in the seventh century". The time gap, a connection, perhaps? Yours faithfully, CAMILLA KERR, Pine Lodge, Wick Lane, Downton, Salisbury, Wiltshire, February 9.

Guy Liddell

From Professor Anthony Blunt, FBA

Sir, In his letter (February 15) Mr D. W. A. Mure points out that there is a contradiction between a statement of mine about the timing of Guy Burgess's visit to M15 after the disappearance of Guy Burgess and what Mr Boyle reported. Guy Burgess had defected before Guy Liddell arranged an appointment for him to talk to the security authorities; and that meanwhile Liddell and I attempted to dissuade him from approaching M15. Yet in his autobiographical book, *A Chapter of Accidents*, pages 207-211, Liddell tells a quite different story. There, after referring to a conversation he had with me on the day after his telephone conversation with Liddell, Liddell continues: "The next day I went up to London and made my way to M15... at M15 I was taken into the presence of an officer whom I had known during the war and who had also known Guy [Burgess] well."

The discrepancy between these two accounts, one written and published deliberately about seven years earlier, the other based on a conversation held with him when he was on his deathbed, supports my considered view that his last conversations as reported constitute, as I have previously suggested to *The Observer* in a detailed comment (the rest of which was not published in full), "as a whole, a mixture of facts, statements that are actually incorrect and others which are gently distorted. That this may be due to failure of memory is very possible—and in the circumstances would be understandable". Yours faithfully, ANTHONY BLUNT, c/o Michael Rubinstein, 6 Raymond Buildings, Gray's Inn, WCI, February 15.

Mrs Thatcher's model son

From Professor A. Cameron

Sir, Has it been established whether Mark Thatcher is unwilling to model British clothes? Perhaps no British manufacturer had the gumption or nous to ask him. I am Sir, your obedient servant, A. CAMERON, Iden House, Goudhurst, Kent.

Higher finance?

From Mrs D. E. Coombes-Herridge

Sir, What can we put into our future Christmas puddings now that the Government feels inclined, needlessly in my opinion, to scrap the very British "tanner"? Yours sincerely, DORIS E. COOMBS-HERRIDGE, 2 Gaen Street, Barry, South Glamorgan.

David Wood

Sir Ian comes out of his shell

Not too long ago, during a small luncheon largely given up to a learned and fascinating discussion on breeding pedigree Charolais cattle, Sir Ian Gilmore, the father-in-law asked how it happened that so very able a man seemed then to be making a deep mark in politics. I remember suggesting that in politics modesty and difference get nowhere. It was, in short, time for Sir Ian to be a living illustration of several clichés: to come out of his shell, to stand up and be counted, to sit firm and not budge, and so on.

At last he has done it by his characteristically urbane and oblique lecture in Oxford on Conservatism. The text has won him a notoriety he no doubt finds disobliging, for he appears to have shown no vulgar zeal in seeking publicity for it.

Nevertheless, singlehanded he has won a propaganda battle for the "wet" members of Mrs Thatcher's Cabinet that the hard men and Mrs Thatcher herself have so far lost. The attention he has won among Conservative to the space he has proportionately in newspapers, simply because by an accident of timing he went to Oxford precisely at the time when political commentators were looking for evidence of Cabinet disagreements, splits, or even net resignations.

Sir Ian Gilmore, an unimpeachable source, provided that evidence. The only question left-square with how many stood four-square with him to what used to be called Burskism, called Churchillskism, or Moncktonskism? Label the political style and approach how you

THE TIMES

BUSINESS NEWS

Stock markets
FT Index 462.6
FT Gilts 66.02

Sterling
\$2.2955
Index 73.0

Dollar
Index 85.3

Gold
\$638.5

Money
3mth Euro-S 15 1/2-17 1/2
3mth Euro-S 15 1/2-17 1/2
6mth Euro-S 15 1/2-17 1/2

Friday's close

IN BRIEF

Lord Grade faces £30m challenge to franchise

ATV, the Midlands television company, headed by Lord Grade, will face a £30m challenge from a newly-formed consortium when it applies for the continuation of its franchise. Midlands TV, headed by Mr Stuart Wilson, a former Yorkshire Television executive, and with the writer Lord Willis as deputy chairman, plans to contest the franchise for the ATV area.

Robot plant for UK

Condec Corporation of Old Greenwich, Connecticut, said its Unimation unit is establishing a 35,000 square foot robot manufacturing plant in Telford, Shropshire. The plant, involving about 100 new jobs, will be partially financed by a Department of Industry grant of £44,800 (about £36,370). The National Research Development Corporation has agreed to provide £553,400 in joint support for working capital.

More Pricerighters

London Co-operative Society has increased to 16 its chain of revamped Priceright supermarket chains, which have dropped dividend status in favour of lower prices. Takings at these stores have risen by an average 30 per cent. The chain should number 30 by the end of July.

Textile jobless rise

Employment in the cotton and allied textile industry fell 5,300—or 7.1 per cent—during 1979 according to the Textile Statistics Bureau. Spinning and weaving output in December, last year, was 41 per cent down on 1978. Almost 1,300 jobs were lost.

£7.5m road order

A £7,500,000 contract for the construction of a new link road in the heart of Telford New Town, east Shropshire has been won by R. M. Douglas Construction of Birmingham. This is the largest single contract placed by Telford Development Corporation.

Chemical joint venture

Manchem, the Manchester-based subsidiary of RICI Chemicals, and Savile Chemicals are planning a joint venture to manufacture sodium methoxide, used in the pharmaceutical, detergent and agrochemical industries. The plant, at Chesterfield, may also make trialkylborates, used in a wide range of chemical synthesis reactions.

Management survey

More than 400 managing directors supplied information for a survey in the magazine *Chief Executive*. Two-thirds admitted they spend too little time planning for the future. Half said they rarely went 30 minutes uninterrupted. Failure to delegate responsibilities was believed to cause constraints on effective management.

US steel curbs urged

United States specialty steel producers are the United Steelworkers Union have asked the Carter administration to put into effect a "trigger-price" system to slow imports of stainless and alloy steel products. The producers say they expect a flood of special types of steel from Japan, Western Europe and other foreign suppliers. Previous quotas set expired last Wednesday.

Liverpool protest

The joint shop stewards committee of the Maccanay plant at Liverpool met yesterday to draw up a progress report for a meeting in which all 940 workers have been called.

Gloomy report predicts that engineering orders could fall by 20 per cent

By Edward Townsend

Top government officials will today be receiving copies of one of the most pessimistic reports on the state of British engineering in the world. The gloomy report, which has been prepared by the mechanical engineering short-term trends working party, predicts a fall of 20 per cent in orders for engineering products in 1980.

The gloomy report has been prepared by the mechanical engineering short-term trends working party, which includes senior industrialists, trade unionists and Whitehall officials. It is unanimous in believing that the Government is unaware of the impact its economic policies are having on the health of the manufacturing sector.

The report has gone to government departments, the National Economic Development Office, the CBI and the TUC, not so much as a plea for help but as a plea for recognition of the problem. The 'Engineering Employers' Federation (EEF), which has members on the working party, says the industry is being crippled by policies which could have a lasting effect on its competitiveness. Mrs Judith Harper, the EEF's deputy director of commercial affairs, said the Government's control of the money supply was "a farade".

More strict control of public

spending was essential but the federation was calling for a decline in current spending, not for cuts in capital projects which hit engineering. There is no sign of cutting waste and inefficiency or the numbers of civil servants, she said.

In its report, the working party says that, since its last forecast in November, economic conditions have become even more discouraging. In view of recent events, in particular world political tension and a continuing escalation of oil prices, it is considered that there is a very real and unquantifiable risk of an outcome much worse than indicated by the new set of predictions.

Forecasts for new orders do not take into account large individual orders likely to be placed this year for nuclear power station projects, particularly those at Heysham and Torness, but it is felt that allowance for these investments would give "a misleadingly optimistic impression" of the industry's prospects.

The working party says there are already indications that the steel strike, coming at a time when the engineering industry's competitiveness is blunted by the strength of sterling and domestic cost increases, has led to loss of business to foreign competitors.

It adds that worsening relations with the Warsaw Pact countries could pose a threat to engineering. Mechanical engineering products from the United Kingdom sold to the Soviet Union and its satellite countries represent 5 per cent

of British industry's total exports. "Complete loss of new orders from these sources would obviously be very harmful to the industry."

Referring to the impact of North Sea oil on the economy, the report says that between 1976 and 1979 the United Kingdom's overseas trade surplus in manufactured goods fell by an amount almost exactly matching the reduction in the trade deficit in oil.

This implies that North Sea oil has in effect yielded no net benefit to the United Kingdom at all. Britain has simply enjoyed an income from extracting oil in exchange for a reduction in income from manufacturing activity.

On manpower, the report shows that the industry's labour force declined steadily during 1979. In the 10 months to the end of October there was a loss of 27,000 jobs, a drop of almost 3 per cent. The downward trend has continued, and some industry observers estimate that a further 30,000 jobs will be lost in engineering this year.

The only encouraging prospect in the working party's view is that, in the late 1980s and early 1990s, high energy costs may be expected to justify additional spending on engineering projects to release new sources of energy. Equipment may be required for new processes, and it will, wave, heat or solar devices become economically and environmentally attractive. They would require a large amount of mechanical engineering work.

Norwegians to raise oil tax levels

From David Parton Oslo, Feb 17

The Norwegian ministry of finance plans changes in the present oil taxation system in the Norwegian sector of the North Sea which are likely to be viewed with dismay by the oil companies. With the combined tax load already about 70 per cent, the proposals will bring taxation up to between 80 and 85 per cent.

The Norwegian attitude is that an upward readjustment of the system is fully justified by the heavy increase in oil values over the past few years. In 1978 a barrel in 1978 to about \$34 at present. Since the proposals are more or less in line with what the Socialist Left Party has recently demanded—on whose support the minority government normally depends—changes should be no problem steering the changes through the Storting (Parliament).

As the tax rules stand at present, the oil companies pay a normal income tax of about 50 per cent and a special tax of 25 per cent based on a somewhat lower income. Tax is paid the year following the period in which the income has been earned. This credit period will now be reduced to three months, although the process will be complicated by a number of problems of cash flow.

The special tax rate is to be increased to 35 per cent, with no allowances for interest. Allowances in respect of capital investment will be spread over 10 years instead of the present fifteen.

The only relief is afforded by a proposal to remove the present limit of a third on losses which can be carried forward from the preceding year, but this is seen more as a psychological palliative rather than a real gain to the companies.

The government's own illustration of the effects of the proposals assumes an increase in the production of oil resulting from developments in the North Sea of about 75,000 kroner (£5,700m) a year from 1980 to 1985. The state share of such an increase under the present tax rules would be 47,000m kroner (£3,500m), while the new proposals will bring this share up to about 65,000m kroner (£4,800m) if they are approved in their entirety.

Bright future for coal

The International Labour Organisation in Geneva predicts that employment in coal production will grow for the next 40 years. The industry's global labour force, now at some 4.7 million workers, will swell to six million by 1985, to 8.4 million by the end of the century, and to 11.6 million by the year 2020.

Ministers urged to avoid building cuts

By John Huxley

Next month's White Paper on public expenditure must show evidence of the Government's determination to resist arbitrary cuts in buildings, according to construction industry leaders.

They believe that the Government's present commitment to provide stability of public sector work in which the industry is heavily dependent, is "too vague for comfort".

As the Government has come under increased financial pressure in recent months, industry fears have grown that, as previously, capital projects will be axed. In 1979, the House of Commons started work on fewer homes last year than in any year since 1951. In the most recent inquiry by the National Federation of Building Trades Employers, only 16 per cent of 600 companies reported new inquiries for new work. Almost half reported fewer.

But differences have emerged over the industry's approach to Government. The Group of Eight, which brings together union, employer and professional representatives, has already drawn up UCATT, the largest construction union. Moves within the group to seek a crisis meeting with the Prime Minister have so far been overruled. But internal pressure has grown to speak in stronger terms to ministers about the threat to the industry—hence the importance that its members attach to next month's White Paper.

The federation accepts that further public spending cuts are necessary if the public sector is to be contained and resources are to be switched to the private sector. But it argues that cuts must be made in current rather than capital spending.

Mr Allen, who said private investment was proving slow to take off and required fresh impetus, which had to be provided in the forthcoming Budget. Construction industry confidence that its work will not be cut back further has not

been improved by a series of recent meetings with ministers. Only recently, Mr Michael Heseltine, Secretary of State for the Environment, wrote to industry leaders warning them that they could not expect to escape the effects of further Government economies.

The prospect of further cuts has aggravated tensions within the industry. After a brief recovery in 1979, each sector seems likely to suffer this year. The civil engineers—dependent on the public purse for about 90 per cent of their work—will face a 50 per cent cut in their level in the early 1970s.

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No European action over low-cost chemical products imported from United States

By John Huxley

Trade ministers have rejected a call for the European Community to restrict imports from the United States of synthetic fibres.

Britain has sought approval to impose quotas for imports of polyester filament yarn, nylon carpet yarn and tufted carpets of man-made fibre. The indications at the weekend were that the Commission had turned down an immediate move to curtail imports in favour of protection which would be triggered when penetration reached a specified level.

The British case for protection has rested on the fact that American producers benefit considerably from the artificially low price they pay for energy and feedstock.

Although the United States has announced its intention to phase out controls on oil prices by September 1981, and on gas prices by 1985, it has been told by British ministers that these price controls provide certain sectors of American industry with an unfair trading advantage.

Later today, Mr John Nott, Secretary of State for Trade, is expected to give details of Community-backed action by Britain to restrict imports from the United States of synthetic fibres.

Petrochemicals group in secret talks to iron out differences

By John Huxley

Leaders of the petrochemical industry will be locked in for a 24-hour session at a secret rendezvous today.

The meeting represents what is believed to be a unique move by a sector working party, set up by the last Government as part of its tripartite industrial strategy, to resolve differences.

The petrochemicals SWP is one of 17 on probation. It has been told that it will be axed if it can not prove its usefulness. Earlier this month a meeting with Sir Keith Joseph, Secretary of State for Industry, planned for today was cancelled amid allegations by union representatives of sabotage by the international chemicals companies.

Today, unions, multinational companies and Government officials under the chairmanship of Professor Patrick Rivett, will attempt to lay down some guidelines for future action.

especially in the field of planning and trade policy. Mr Roger Lyons, national chemicals officer of the Association of Scientific, Technical and Managerial Staffs, explained that there was a reluctance on the part of the oil majors to cooperate in analyses.

Among the issues certain to be raised at today's meeting is the alleged interference in the export policy of Albright & Wilson by its American parent Tenneco.

Mr Lyons has complained to Sir Keith Joseph that Tenneco instructions on trade with Cuba and South-east Asia contravene an agreement drawn up between the Government and the American company in 1978. This laid down the conditions for the takeover.

ASTMS says managers fear curbs on trade with Eastern Europe may follow. This would threaten jobs, especially at the company's Whitehaven plant.

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Security circles have reported, however, that in January alone, inflow of oil money to Japan amounted to \$400m, more than double previous monthly inflows. Not only public but private portfolios through Japanese securities dealers were involved.

While the Saudi Arabian move will not affect the bond and stock markets, since the transaction took place directly between central governments, a move initiated by the Kuwaiti government may have stronger direct impact on Japanese industrial and corporate structures.

The Kuwaitis laid down four conditions as collateral to selling oil to Japanese firms. Terms proposed are: 1, trans-

fer of 25 per cent of issued stocks; 2, transfer price to be at face value and not at current value; 3, assurance of annual dividend payment of 25 per cent; 4, representation of the Kuwaiti government on the board of directors.

Such proposals were advanced to the Japanese firms in the course of negotiations for oil purchases as from April.

Since Kuwait is the fourth largest oil exporter to Japan (after Saudi Arabia, Indonesia, United Arab Emirates, and Iran) accounting for 9.1 per cent of total oil imports in 1979, it is held impossible to reject the Kuwaiti deal. It is reported that British Petroleum and Cofir, which are major importers of Kuwaiti oil, have also received similar proposals.

Observers think the move spells out the desire of the Kuwaiti government to pursue a policy of partnership with the oil stream sector of the petroleum industry, and that the current proposal is the beginning of positive moves designed to eventually replace the major oil companies.

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The fear, now recognized by the Government, is that these advantages, combined with a favourable rate of exchange against sterling, will be used to attack British markets upstream from fibres to American producers which have been enjoying a buoyant home market. They will take advantage of these when the approaching downturn in the United States economy takes effect, the association believes.

"The result could pose a severe problem for the whole of the European industry, particularly in the case of chemicals, polymers and fibres."

Mr Crouch said that regulation of energy prices is causing a "serious distortion" in the European market for hydrocarbon feedstocks. He has also asked the Department of Trade to press the United States to allow the free export of gasolene, naphtha and gas oil.

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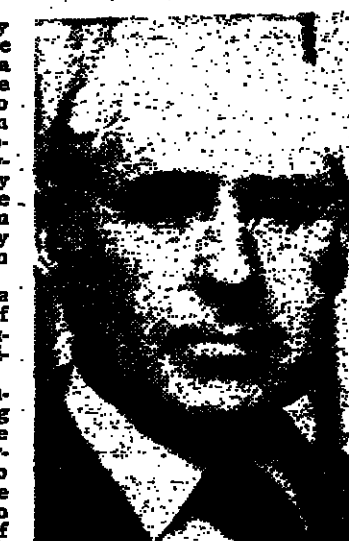
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Mr David Crouch: America's energy subsidy causing serious distortion in European market.

Jobbers act to prevent losses on trading

By Alison Mitchell

Leading jobbers in the stock market are increasing the spread—the difference between the buying and selling price—on several shares in an attempt to stem overall trading losses on these equities.

Among those shares affected are Whitbread, Bass, ICI and Tesco.

However, Mr John Robertson, the senior partner at jobbers Wedd, Durlacher Mordant, decried that it would put any additional pressure on the small investor.

"It is true that the small chap will not be helped generally speaking, but brokers can often get a better price for a 500 share deal than they can for a 25,000 share deal," he said.

The alternative to widening the spread would have been to reduce the size of the deal in which the jobbers were prepared to trade.

Mr Michael Sargent, a director of jobbers Akroyd & Smith pointed out: "Institutions want to move large sums of money around and they want to deal in a large size of market. We need to widen the spread to give them that."

It is not thought that the jobbers will be widening the spread on any further stocks in the near future.

Several of Wedd's brewery stocks have not been making a gross trading profit for some time as a result of the sector's decline in takeover activity and Whitbread and Bass have been particularly difficult.

A few months ago Wedd changed round several of its leading jobbers, moving Mr David Mordant from the brewery to the leading equity pitch and replacing him on the brewery side with Mr Colin Campbell Golding, who was formerly on the leaders pitch, and Mr Ken Weston. All three are partners at Wedd.

Mr Weston, who has been trading at a loss on their equity pitches in the autumn and winter, Mr Robertson admits that over the past month or so volume has been "very good".

expansion was absorbed "by an increasingly aggressive export programme, and allowed Japanese steelmakers to build large, modern, efficient mills," production of the Japanese steel world's lowest-cost steel.

The report outlines the spectacular scale of Japanese investment in steel. "In 1977," it says, "Japan had 25 blast furnaces capable of producing 10 million tonnes of steel in volume; the United States had none and the EEC only seven."

Expansion of the motorcycle industry was equally as marked and again the causality was largely the United States.

Despite the advantages possessed by American manufacturers, the high investment, high-volume approach of Japanese manufacturers allowed them to overtake their more sluggish western competitors, resulting in the Japanese commanding 77 per cent of the American market by 1974, while the British share had fallen by about 30 per cent in less than six years to 10 per cent.

Investment was also particularly marked in the electronics field, as was the Japanese attention to quality and process engineering, the report says. Japanese figures in colour television manufacture are equally striking.

According to the report, since 1972 the Japanese producers have lowered the time required to assemble a colour television from approximately six weeks to about one and a half.

Japanese Industrial Policy, 1981, 1982.

THE POUND				
	Bank buys	Bank sells	Bank buys	Bank sells
Australia \$	2.14	2.07	11.66	11.16
Austria Sch	26.25	25.35	113.00	105.00
Belgium Fr	66.85	65.72	3.72	3.62
Canada \$	12.73	12.66	139.00	152.00
Denmark Kr	13.02	12.47	9.51	9.51
Finland Mk	8.90	8.58	3.72	3.77
France Fr	9.88	9.28	2.36	2.38
Germany Dm	4.19	3.97	53.00	48.00
Greece Dr	21.00	19.80		
Hongkong \$	1.12	1.12		
India Rupee	1360.00	1870.00		
Japan Ypn	585.00	560.00		
Latin Am	54.00	54.00		
Portugal Esc				
South Africa Rd				
Spain Ptas				
Sweden Kr				
Switzerland Fr				
USA \$				
Yugoslavia Dm				
Rates for small denomination bank notes only as supplied "retardary" by bank.				
Different rates apply to travellers' cheques and other foreign currency.				

MANAGEMENT

Tying reward to performance at the top

Last June's Budget seemed to many senior British managers like a case-fixer: the Conservatives were newly back in office; prices and wages controls had already gone; and the top rate of income tax was reduced from 83 to 60 per cent, the lowest it had been for 50 years.

A senior manager costing his company £50,000 a year before his pension contribution, taking advantage of a company car and the full interest deduction, maximum life insurance, work overseas and voluntary additions to his pension package, might have seen his remaining discretionary income rise overnight to over 60 per cent.

Now, it seems, further sizeable increases in the rewards to top management remuneration may be in the pipeline. Companies whose annual reports have appeared in recent months show evidence of a general rise in executive directors' pay; some report individual increases well over 50 per cent. Assuming "only" a 20 per cent increase, our senior manager could expect his discretionary spending power to have doubled since June.

In my firm's 1975 submission to the Diamond Commission, we argued that three requirements—no different in principle for management than for the shop-floor—were necessary to ensure maximum motivation and maximum reward for achievement.

First, remuneration should reflect the "market rates" for a fair day's work—and how well an individual does in carrying it out.

Third, it should be possible to accumulate reasonable savings out-of-after-tax income, so that job mobility becomes a more practical possibility.

We went on to argue that, in the case of managers, none of these requirements were being met adequately in Britain, and until June we saw no reason to change our conclusions.

One powerful answer to pleas that British management has been underpaid has always been that British industrial performance has been well below competitive international standards—not only in productivity but also in export market share, in delivery performance and, perhaps most disturbing of all, in product design and performance.

Divergence

Few would disagree that Britain should have a high-wage and a high-productivity economy yet of late what we have been paying and what we can afford have been seriously out of line. The initial British Steel Corporation offer of 2 per cent base and 10 per cent for local productivity negotiation was one of the first offers to reflect the true position at shop-floor level. What about at management level?

It is, I think, fruitless to debate the chicken or egg question, or rather the "pay peanuts, and you will get monkeys" response. The boards of British companies today have a unique opportunity to set an example throughout industry, by ensuring that any further increases

in management remuneration are first earned.

How can boards set the example? First, top management remuneration systems should be restructured to relate rewards more closely to performance. The first step in this direction can be taken now, before any further pay awards, by carving out a portion (say 15 per cent) of existing compensation and tying it to performance.

Second, the incentive element of total compensation should be geared to planned performance adjusted for the effects of inflation. Failure to achieve the plan should result in the loss of some proportion of the incentive element; achievement of the plan should result in expected total compensation. By the same token, achievement above target—assuming it does not result from an inflationary or similar windfall outside management's control—should result in an even higher incentive bonus.

Third, critical operating standards should be included in the criteria for incentive awards and, where appropriate, "relative" worldwide industry standards should gradually replace "absolute" internal company standards as the criteria for measuring how well management has performed. There is little point in praising Lord Layland's top management for improving performance in British Leyland if imports continue to win 60 per cent of our domestic market.

British cars have to be able to compete with imports in terms of performance, after-

positions should be material, sales service and added-value features as well as price, and the same made in an equivalent number of man-hours with comparable resources, before we can begin to talk of managers in the car industry being paid on levels comparable to Europe, Japan or the United States.

If the Chancellor were to remove the income-tax penalties on share option schemes, longer-term capital incentives for senior management might be added to the essentially short-term motivations of an annual cash incentive bonus plan.

Incentives

United States experience suggests that, even without such a concession, companies might still find bonuses earned over, say, four years well worth the cost. Some 90 per cent of the big United States corporations have long-term incentive plans, the rewards of which in many cases bear tax at rates no longer so very much lower than United Kingdom rates, and whose cost—unlike the cost of awards taken up—is also a tax-deductible charge against corporate profits.

This widespread use of long-term incentive schemes in the United States has frequently been cited as evidence that bonuses have become inseparable from base pay—expected and paid as a matter of right: with improper administration this can happen.

Yet McKinsey compensation survey statistics have convincingly shown that under such

schemes total annual cash compensation is reduced for top executives as well as a significant number of companies whose performance declines, and that companies more closely relating short-term changes in pay to short-term changes in performance tend to perform better over the long run.

Clearly there is no single formula for incentive bonus schemes; market characteristics and practices, corporate objectives and policies, operating profitability and competitiveness will all shape any one company's plan. Moreover, incentive compensation may be less applicable in certain industries, for example, where growth is slow or demand inelastic, or where external regulatory or other factors dominate performance.

However, there may be greater scope for incentive compensation than is sometimes assumed. Why should not some nationalized industries motivate and reward their top management with incentive bonuses—having, of course, decided to pay them competitive compensation in the first place? While the utility, such as gas and electricity might not be prime candidates, would not those nationalized concerns competing in worldwide markets, such as British Airways and British Steel, have benefited from such an approach in the past—and might they not yet in the future?

John Woodthorpe

The author is a director in the office of McKinsey & Company.

LETTERS TO THE EDITOR

Adjusting accounts for inflation

From Mr Anthony Meeson
Sir, The excellent article by A. J. Merritt and Allen Sykes in *Business News* (February 11) argues the case convincingly for the use of replacement cost accounting in the preparation of business accounts. It also exposes the inconsistency inherent in the gearing adjustment proposed by ED24.

Unfortunately, what Messrs Merritt and Sykes have failed to explain is that neither replacement cost accounting (CCA), the variant of it proposed by Sandilands and largely adopted by ED24, is in fact a method of accounting for inflation.

Although CCA correctly allows for the increased (or decreased) cost of replacing assets used in earning the profits, it completely ignores changes in the real value of money (namely its purchasing power) and continues to relate profits calculated in today's devalued currency, to capital provided in past years, which may well have had a real value equal to many times its present nominal amount. This was made plain by Messrs Merritt and Sykes in paragraph nine of their article where they state somewhat ingeniously that, in considering the National Income and Expenditure Statistics after adjustment to RC or CC net of tax profits (the Sandilands basis), "these profits are seen to be alarmingly low for 1974-76 and less than satisfactory in all later years particularly when it is remembered that general prices (the retail price index)

have increased threefold in the past decade, and doubled in the past five years."

It would seem to be self-evident that any system of accounting that requires the user to remember the changes that have occurred in the retail price index over the past five or ten years in order to appreciate the significance of the figures can hardly be seriously described as a method of accounting for inflation.

Current purchasing power (CPP) accounting (which can equally be described as comparable purchasing power accounting) may not be a perfect system of accounting for inflation, but at least it avoids this monumental error.

Yours faithfully,
ANTHONY MEESON,
Senior Partner,
Meeson Mackintosh & Co,
Ashley House,
18/20 George Street,
Richmond,
Surrey TW9 1HD,
February 12.

so have share prices of oil companies holding large stocks of oil, which hardly supports their thesis. They are right to reject the gearing adjustment in ED 24. A company with long-term monetary assets or liabilities would still need to adjust its interest receipts or payments for inflation even if it had no depreciating fixed assets and no stocks of goods, whereas it could not do so under ED 24.

But Merritt and Sykes have fallen into the same trap as Sandilands in thinking that no adjustment is required in any case. Do they really regard the whole of interest receipts as income which can be prudently distributed in our present inflationary times? True, if I consume all the interest, the money value of my asset may be unchanged, but that is small comfort if its real value is falling at 20 per cent per annum.

Historic cost accounting was doubtless imperfect, but it worked tolerably well in non-inflationary times. CPP is, broadly speaking, historic cost accounting adjusted for the fact that the index of consumer prices, instead of being stable in the long run, is rising rapidly. It was the accountants' original solution to the problem of inflation accounting, and it is now being tried out in the United States. Could we not agree to give it a trial here?

Yours faithfully,
M. FG. SCOTT,
Nuffield College,
Oxford OX1 1NF,
February 12.

GEC considers the case for taking itself apart

All things considered, the publicity which GEC has had recently for its ideas on taking itself apart—by floating off divisions as independent companies—has been interestingly timed. After all, the group was until late last week engaged in a £100m-plus battle for further expansion of its already extensive empire, through the acquisition of Decca. That battle has been lost, but the losses remain. Will anything ever come of them?

Group thinking on the matter—and it has to be understood that the group, in this case, means a few individuals very close to the policy-making centre—runs along the following lines.

First, several GEC divisions are of a size to compare with their quoted competitors; but their management enjoy none of the recognition attached to the successful management of an independent company.



Sir Arnold Weinstock, managing director of GEC, waiting for the Inland Revenue to change its policy.

Second, for the purposes of most of the group's workers, GEC is just too remote to inspire much loyalty: given smaller units it should be possible to encourage a greater

feeling of identity by, for example, share ownership schemes.

Third, as things are at the moment, GEC could be a sitting duck for nationalization.

Fourth, there are objections to size anyway: for example, it makes acquisition and mergers difficult under anti-trust and monopolies legislation.

As against all this there is the fact that size itself has clout, particularly when it is a matter of facing up to international competitors who might very well be of a size to compare, not just with the relevant division, but with the whole group—and who might well use their trading and financial muscle accordingly.

Second, and potentially more tricky, there is the fact that some GEC companies are heavily dependent on others for their business. For example, many of the overseas companies

were originally established to sell GEC products abroad; and though they now have local manufacturing subsidiaries, their United Kingdom suppliers still depend on them for an outlet to that market.

These arguments have been bubbling in GEC's policy pot, in a desultory fashion, ever since the group set its mind to redressing the wrongs of shareholders under dividend control (though the immediate outcome then was the £178m share repurchase issue of March 1977). Most of the steam now is rising from the Schreiber Hotpoint situation.

Schreiber Hotpoint is an oddity within GEC, for two reasons. First, the division is remarkably self-contained and independent of the rest, and second, GEC does not own all the shares. When the group acquired Schreiber to merge it with BDA in August, 1974, the Schreiber shareholders retained

a 37½ per cent stake in the enlarged company, on the understanding that it would eventually be floated off. It seems that that moment may now be approaching—and that Schreiber may be used to test the water for the group.

Before GEC takes its ideas much further, however, there must be changes in legislation. Quite apart from the legal problems at the moment, an attempt at dismemberment is likely to produce a stiff liability to income tax for the shareholders.

The Government has a committee, under Mr John Rott, considering the legal problems: but it's the Inland Revenue's position that will have to change before GEC gets down to carrying out the idea internally. And even then, it's by no means certain that the group will go ahead.

Adrienne Gleeson

Time, money and maintenance in Britain

Does British industry employ too many maintenance men? The evidence contained in a survey issued by the Centre for Interfirm Co-operation, together with various international studies carried out by the National Economic Development Council, suggests that it does.

It seems that one person in 12 in manufacturing industry is engaged in maintenance, that annual maintenance costs amount to one-quarter of the value of the plant employed, and that in the engineering industry over 20 per cent of maintenance staff time is spent on emergency work. On this basis, Britain's annual maintenance bill could be as high as £10,000m to £13,000m—nearly twice the defence bill.

Reports issued by the NEDC's Iron and Steel Working Party, which compare productivity in EC plants with similar works on the Continent, showed that British plants had 21 per cent more maintenance staff than their Dutch equivalent and 24 per cent more than a Swedish counterpart.

Three Central Policy Review Staff comparisons within the motor industry came to much the same conclusions: the British plants required 50 to 80 per cent more maintenance workers. An Economic De-

velopment Committee study of chemical plants in Britain, the Netherlands, West Germany and France told much the same story in the chemical plant number of production workers, but many more maintenance, managerial and administrative staff.

There are two possible reasons for the differences. One is the rigid craft demarcations, which mean that an identical

repair job could involve six different tradesmen in Britain, but only two on the Continent. The other is that British equipment is older and more dilapidated than that of its overseas counterparts as a result of years of inadequate investment; and it therefore breaks down more often.

There is plenty of evidence to support both arguments. The NEDC's Iron and Steel Working Party found that the

practice of employing craftsmen's "mates", that is, semi-skilled labourers who fetch and carry for the craftsmen, did not exist in the continental plants they surveyed. There, such work was done by production workers.

Clearly lack of investment must also have a part to play in increasing the level of maintenance required, if United Kingdom factories are working

with older, less reliable plant than their foreign rivals. Here the evidence is less specific, but undoubtedly investment levels for each employee are much lower in Britain than elsewhere.

The Confederation of British Industry found much higher investment levels for each employee in manufacturing in Japan, France, West Germany, the United States, and Sweden. In the case of Sweden, the

United States and France, investment levels were more than double the equivalent figure for the United Kingdom.

Given the huge sums involved (not only are maintenance workers highly paid, often earning 20 per cent to 30 per cent more than their production colleagues, but industrial emergencies are always expensive in lost production) the centre is right in recommending managers to ensure that the money is well spent. However, it may be that little real improvement is possible until more can be invested in new plant.

But the CBI points out: the argument for investment is essentially circular. For it can be argued that low investment levels reflect the degree of overmanning, and if manning levels were competitive the investment would improve.

Tackling traditional lines of demarcation between maintenance and production staff might be one way of breaking into the loop, and it is encouraging that the NEDC study team recommends a decentralization of the case for production personnel helping out during breakdowns at both national and local level. It may not be much, but at least it is a start.

Patricia Tisdall

CHECKLIST

Lombard and Another v Shell Petroleum and Another: Court of Appeal held that in the case of multinational companies, Shell and BP, which hold 100 per cent shareholdings in subsidiary companies incorporated abroad, it is a question of fact whether the parent company has in its "effective" documents in the possession of its overseas subsidiaries (that is whether it can produce them when required by arbitrators).

United Kingdom Association of Professional Engineers and Another v Advisory, Conciliation and Arbitration Service: House of Lords found that, provided there had been a full examination of the issue referred to ACAS, and that its conclusion was reasonable in the context of the findings set out, it was left to the judgment of ACAS to decide what findings to make, and the courts could not interfere.

Export credit: under new arrangements for fixed rate credit coming into force on April 1, the banks and other deposit-taking institutions take over the financing of British exports sold on a buyer credit basis. The ECED will continue to share a subsidy to cover the difference between the market rate and the subsidized export credit rate.

Coal price increases: the price of coal to most industrial users is to rise by 20 per cent from March 1. Coking coal will rise by 15 per cent.

Enshrining duties of directors in law

Duties of a director towards his company can be said to fall into three categories: managing the day to day affairs of the company and, rather more difficult to define, fiduciary duties.

The duties of loyalty and good faith owed by a director towards his company, is an area in which parallels are frequently drawn between the director and those of the trustee. Fiduciary duties are owed to a company and a company alone.

It has long been felt that a statement of the basic principles underlying the relationship between a company and its directors would be useful both to members' company boards and others concerned with business management. Such general statements of principle appear in several Commonwealth and American Acts, and it was recommended by the Jenkins committee that such a formula be incorporated into English law.

A general statement of fiduciary duties was incorporated in the Companies Bill 1978 but has now been withdrawn in the new Companies Bill.

However, part four of this Bill lays down a new fiduciary duty, that directors should have regard to the company's employees in general as well as the interests of its members, and goes on to state particular transactions involving directors which might give rise to a conflict of interests between a director's personal interests and those of the company.

Although existing contracts of employment will not be affected, it will no longer be possible for a director personally to exercise his position on the board of a company for a period exceeding five years which cannot be terminated by notice from the company or can only be terminated on specific circumstances, will not be valid unless ratified at a general meeting of the company.

New provisions have also been introduced to cover the transfer of substantial non-cash assets between companies and their directors, or connected persons. Such assets must exceed £50,000 or 10 per cent of the company's assets in value.

Such arrangements, unless done with the prior approval of the company at a general meeting, are declared void at the option of the company, and even where restitution is impossible or innocent third parties have gained rights in such an asset, the director or any other director with knowledge of the breach will be liable to indemnify the company for loss suffered by it.

The provisions of the 1948 Companies Act relating to loans to directors will be repealed and replaced by comprehensive legislation covering loans, quasi-loans (payments on behalf of the debtor to a third party), and various other credit transactions.

Broadly, a company can only provide guarantees or security

if the aggregate of the amounts do not exceed £5,000 or if it enters into the transaction in the normal course of business and the terms on which it does so are no more favourable than would be given to a third party of similar financial standing.

There is a limited exception to this in the case of a loan for house purchase given by a money lending company and not exceeding £50,000. Here, the restriction is that such loans must be generally available to employees of the company on no less favourable terms.

Loans can also be made to meet expenditure to be incurred for the purposes of the company or to enable a director properly to perform his duties as an officer of the company. However, such loans must be ratified by the company at a general meeting or be given on condition that they will not be paid if they do not receive subsequent ratification at the next such meeting. In any case, such a loan must not exceed £10,000.

All such loans must be disclosed in the accounts and there are further provisions for disclosure of contracts in which directors have a material interest. These will replace those of the 1967 Act and while qualifying contracts requiring disclosure to those in which the director has a "material" interest, much fuller disclosure of the interest and nature of the contract is now required.

Clare Watson

S&W Berisford

An international group of companies principally involved in the merchanting, processing and distribution of key raw materials.

Facing the new decade with restrained optimism

In his annual statement to shareholders, Mr. E. S. Margulies, Chairman of S & W Berisford Limited, reports that despite difficult trading conditions resulting from the world economic climate and industrial unrest at home, the Group turnover for the financial year ended 30th September 1979 increased by 62%. However, net margins were affected by the unprecedented rise in the cost of money and this limited the increase in Group profit before taxation.

The total dividend proposed for the year is 7.5p net (10.7143p gross)—an increase of 79.1% on last year's payment. Says Mr. Margulies: "We very much welcome the freedom we now enjoy to reward shareholders on a more generous basis than for many years."

Shareholders' funds at the year end amounted to £119.5m—an increase of £17.5m.

Referring to the high level of interest rates, the Chairman says:

Ordinary Shareholders' Funds (£m)	
1979	119.5
1978	102.0
1977	84.5
1976	67.0
1975	50.0
1974	33.0
1973	16.0
1972	0.0
1971	0.0
1970	0.0
1969	0.0
1968	0.0
1967	0.0
1966	0.0
1965	0.0
1964	0.0
1963	0.0
1962	0.0
1961	0.0
1960	0.0



"The present cost of money both here and overseas makes a substantial inroad into our profit margin, and we look forward to some relaxation in both domestic and overseas interest rates in the not too distant future."

Concluding his statement, he acknowledges the hard work and effort given by those who work in the Group, which has resulted in such creditable results in the face of very adverse conditions. The continuation of these conditions as we enter the new decade will effectively rule out the continuation of growth at the level we achieved in the last decade. Nevertheless, I view the future with restrained optimism, based on the inherently sound structure of the Group here and overseas, the quality of our management and traders, and our widespread activities over diverse sectors of industry."

Summary of Results

	Year ended 30th September.	
	1979	1978
	£ million	£ million
Sales	2,170.17	1,541.50
Profit before taxation	32.23	51.54
Ordinary Shareholders' earnings	25.55	26.56
Ordinary dividend	6.69	3.74
Shareholders' Funds	119.54	102.08
Earnings per share	28.37p	30.10p
Dividend per share (net)	7.5p	4.60625p
Dividend times covered	3.78	7.11

Copies of the Annual Report, containing the Chairman's Statement in full, may be obtained from The Secretary, S & W Berisford Limited, Berisford House, 50 Mark Lane, London EC3.

مكاتب التحصيل

BY THE FINANCIAL EDITOR

Staying power of the clearers

Whatever problems the London clearing banks have had to face from their loss of market share of sterling deposits in this country in the 1970s and the growing cost of the domestic banking network, there has been little sign of these adverse trends in bank profitability, which over the past decade has run at about twice the inflation rate and somewhat ahead of the rest of British industry. In part that has been due to the expansion into other areas like hire purchase and most importantly international banking, but the chief reason—as the banks themselves worry about—is simply the “endowment” benefit they derive in periods of high interest rates.

Whether or not the clearers have been resting too comfortably on the cushion of high interest rates, there is less doubt in the stock market which is dubious of the staying power of the big London banks. When the results season gets under way this week with the figures from Lloyds on Friday, the clearers will certainly have done very well out of rising interest rates and a level of loan demand that has given the Government shivers over its effect on monetary control.

And that has been achieved despite a generally stodgy performance overseas due to the main to the razor-thin margins in Eurocurrency business where the clearers have been making a big effort in the last few years to catch up with their United States and European competitors.

So second-half growth of around a quarter on top of the first half's 70 per cent upturn should produce an overall increase of some 40 per cent to £1,500m for the big four clearers. But the never-ending upward spiral of interest rates has disguised the clearers' potential vulnerability to falling rates, despite efforts to get more of their lending on to a fixed-rate basis. The stock market has already taken a jaundiced view of the banks' capacity to withstand a drop in loan demand and interest rates.

After the sharp upsurge in share prices last autumn on the strength of the 3 point jump in MLR, clearing banks have been a weakish market since despite being able to show likely fully-taxed price-earnings ratios in 1979 of between 4 and 4½—and around a point lower on SSAP 15 earnings—and yields that range from 5½ per cent at Barclays to almost 7½ per cent at Midland.

Analysts are less concerned about the extent of the downturn in 1980 if, as expected, interest rates and loan demand tails off. Greenwell's see the clearers almost holding their own with only a 3 per cent drop in overall profitability while others like Phillips & Drew and Laing and Cruickshank are much more optimistic seeing a further modest rise in profits in 1980.

US Accounting

Currency standard under attack

The pressure on the dollar is a timely reminder to the accounting profession that time and the foreign currency markets wait for no man.

It is now almost a year since the United States accounting rule-making body, the Financial Accounting Standards Board, announced that it was to rethink its policy on how gains and losses on foreign currency should be shown in the accounts of American multinationals, and indeed any other company with a presence in the American capital markets: in the United Kingdom Shell has been especially outspoken about the adverse impact on its accounts in so doing it was widely praised for acknowledging that the torrent of criticism of its standard FAS 8 had some substance.

But since then deadlines for new proposals have come and gone, and now with the United States reporting season in full swing and with it the certainty of another year's reporting under the unpopular FAS 8 rule, there are signs that both industry and its accountants have had enough.

Industry has, of course, never made any secret of its dislike for a rule which insists that even unrealised losses should be shown on the face of the profit statement, thereby causing violent (and it would say unnecessary) swings in declared profits for companies with heavy overseas debts.

Now the accountants seem to be weighing in, with a lengthy attack recently from one of the United States' most influential members, Mr Joseph Connor, senior partner of

Price Waterhouse. He criticised the board for their “inordinate delay” but more significant was his complaint that FAS 8 was conceptually wrong because the business realities underlying international operations were too diverse and complex to yield to a “simple accounting solution”.

Instead, he suggested, accounts ought to reflect the policy objectives of businessmen long-term, which effectively means that short-term currency fluctuations on debt could be ignored or at any rate put into a suspense account to allow the trading performance of foreign operations to show through uncluttered by global exchange rates.

At the moment, the FAS 8 appears to want foreign operations shown as if they were part and parcel of their United States parent, whereas its critics argue that those businesses have a life of their own, are run separately and their accounts should show their independent progress.

Translating everything into dollars, as required under FAS 8, obscures the real performance of these subsidiaries. One solution that accountants in the United States seem to be moving towards is to translate only those items which relate to the current trading performance and place others like gains and losses on debt into another account where they will not affect the profit figure.

Whether auditors would be able to make sure that their “presentations” were fair or indeed able to stand up to the boards of multinationals on this score is another matter. But as leaders of the British, Canadian and American accountants try to thrash out FAS 8, it only goes to highlight a continuing difficulty of profession, which is the search for an ideal standard covering all companies and all situations. The inflation accounting debate in this country has shown how tortuous this can be.

Guthrie

In Sime's shadow

Guthrie shares dropped 90p from their peak of 900p last week on growing doubts that Sime Darby will return in April, a year after its last bid failed on the run in. The fall must be alarming for the Guthrie board given that the likelihood of a new bid presumably increases in inverse ratio to the direction the shares are moving.

There is no doubt that Sime will eventually move again for Guthrie in its aim to form the world's biggest plantation concern but the odds are increasingly stacking up against an offer in the near future. Buying in the Far East by parties friendly to Sime will undoubtedly have strengthened the group's hand since it failed by a mere percentage point last time.

Against that, however, assuming 900p would be the lowest Sime could offer in current conditions the cost of the bid would be £181m against £105m last time for the 70.1 per cent of the shares it does not own. Meanwhile Guthrie is expected to announce a defensive takeover—probably for City and International Investment Trust—which will have the effect of diluting Sime's stake to around 27.5 per cent, while other acquisitions could be on the horizon. And the group would endear itself more to small shareholders if it were to split the shares: their loyalty could be a key factor in any bid battle.

The trump card, for the moment, however, could be M & G's 13 per cent holding. The capital gains tax consideration supports the view that the unit trust group would not be a willing seller at even £10 a share cash and it is unlikely to be enamoured of Sime paper.

Sime could of course go for a partial bid and be content with control for the moment, while an attempt at a boardroom coup cannot be ruled out given the fine balance of power.

Interestingly Montagu Loeb Stanley estimate that at 800p a share Guthrie's plantations would be nationally valued at M55,650 an acre which is well short of values in the M58,000 to M59,000 range reflected in current prices of group's like Consolidated Plantations, Harrisons Malaysian Estates and Highland and Lowland. There are sound reasons, however, for the disparity based on local market valuations of acreage although some professionals feel the gap is too wide.

Johannesburg. South Africa's new deal for black workers has been in operation for four months, but already there are doubts that it will ensure industrial peace.

Surprisingly, the least of the problems comes from the right of the white labour movement. People like Mr Arrie Paulus, the leader of the Mine Workers' Union—who says blacks are like “baboons” and are “aggressively raising the standard of revolt.” They claim that in granting registration to black unions the Government is “siding a white it will not be able to ride”.

So far Mr Paulus has found little support. The bulk of the established labour movement has studied the line print in the new labour law and agrees with the Government that black unions can be better controlled than the white but brought under the official umbrella.

Mr Fanie Botha, the Minister of Manpower Utilization, recently admitted that the earlier policy of encouraging black unions by refusing to give them official recognition—and, he might have added, by banning or locking up their leaders—had failed. Despite the obstacles placed in their way the infant black unions continued to grow.

It became clear that even tougher repression to kill the black unions was no longer an option. In fact, the black unions have won their battle for recognition. But they still face formidable obstacles.

Up to now their struggle has been against employers and the Government. They now face a third adversary—the moderate centre of the white labour movement. Some of them even feel the three have formed an unholy alliance.

Employers and the Government, white unions want to keep black unions in their place. Statutory job reservation—whereby the Government decrees that certain jobs are open solely to whites—is on the way out, so the white unions want to ensure that they have other means of holding on to their exclusive access to skilled jobs.

They have therefore mounted a country-wide campaign to organize blacks into “parallel” unions which are formally separate from the white but effectively controlled by them—either through seconded white officials or through hand-picked cooperative blacks. In many cases they are doing this in factories where a black union, which is independent of white unions, already has an established membership.

British Leyland's South African subsidiary is a case in point. For years an independent black union battled fruitlessly for recognition there, but Leyland instead, in a parallel union instead.

A bitter fight for the hearts and minds of black workers has started between the parallel and the independent unions. The independent union, formed in the wake of the black industrial strikes in Durban in January 1973, are controlled by elected committees of black workers, and have no formal links with the established white unions.

The Federation of South African Trade Unions (Fosatu), which represents a dozen independent unions, alleges that in some factories personnel managers are helping the parallel union to recruit new members.

The result is that the independent unions are in danger of being squeezed out. But this is not really likely to be the formula—a famous victory of the Budget was of 1979 in which a high direct tax attached.

Last year, threshold increases were calculated to take out of the tax net some 1.3 million relieving taxpayers. This is a particularly cost-effective form of relief, because small amounts are expensive to cover. Elimination of them helps to reduce administrative burdens.

With wage rises running at 17 per cent plus during the year, the 1.3 million will mostly have been swept back in again. And so it goes on—until the Chancellor can afford a real increase in thresholds over and above mere indexation.

The Confederation of British Industry estimates that a 5 per cent real increase would consume £600m. Rooker-Wise might cost £2,000m. But thresholds must have priority if the government is not to be made deeper every year. As the pace of inflation has quickened again, the problem has become more acute.

Another possibility is abolition of the clumsy and misconceived lower rate band of 17.50 per cent, which is not a taxable income at 25 per cent, with an appropriate increase in personal reliefs. Whatever solution is adopted, taxpayers at the lower end of the scale can expect this year, unlike last, to do better than those near the top. Of course, indexation.

Mr P. W. Botha (right), the South African Prime Minister, was blamed partly for the Ford strike at Port Elizabeth last year, for his barrage of liberal rhetoric undoubtedly encouraged rising expectations among the blacks



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advantage of employers, least of all if they want a true picture of black-shopper sentiment so as to avoid strikes arising from bad communication.

It is doubtful if most of the white-run parallel unions are in any position authentically to represent black workers.

The parallel unions, like their white mother-unions, tend to be run from centralized head offices which are often remote from the rank-and-file membership. By contrast, independent unions have been able to keep their members in the face of employer and security-police intimidation only by building up strong and democratic shop steward systems.

So the officials at the top are better placed than the parallel unions to tell employers what their black workers are thinking. Moreover, the independent union leaders have more than once been able to restrain angry workers from staging wildcat strikes.

But not always, and thereby have a tale which next to the parallel union strategy, points up the other reason why the new labour system may not ensure industrial peace.

In November, 700 black blue-collar workers at the Ford Motor Company's subsidiary in Port Elizabeth downed tools when a black white-collar worker claimed that he had

been forced to resign after refusing to cut down his political activities outside the factory.

This was not a labour dispute. Indeed, Ford's wages, working conditions, and black promotion policies are such that it can justly claim to be one of the most advanced employers in the country. But when the workers' union, an independent union, tried to restrain them, they angrily dismissed it as too soft.

The strike was settled last month. But it is regarded as a signpost to the future, for it suggests that the central part of the Government's new labour system—in keeping politics out of the factories—cannot be achieved.

Mr Brian Matthews, the executive director of the Chamber of Industries in Port Elizabeth, says that black workers, given economic rights in the factories in the form of trade unions, but not political rights outside, will use their industrial bargaining power for political ends, and even independent unions may not be able to stop them.

Moreover, the very fact that the blacks at Ford saw better opportunities outside the factory than in the factory, far from appeasing their hunger, simply whetted their appetite for better opportunities outside.

It is even possible that Mr P. W. Botha, the Prime Minister, was himself indirectly partly to blame for the Ford strike, for his barrage of liberal rhetoric last year undoubtedly encouraged rising expectations. The present upturn in the economy after five years of recession gave even more energy to the rising tide of black hopes.

Some people believe that if the Government does not intend giving blacks political rights, it would have been better advised not to have liberalized the labour field at all and in so doing paved the way for the factories to become the surrogate political battleground of the 1980s.

John Kane-Berman

Oliver Stanley

Difficult options for Sir Geoffrey

THE BUDGET ARITHMETIC 1980

Personal reliefs, automatic indexation	£800s
Personal reliefs, 5% increase	2,000
Capital tax cuts	603
Investment income surcharge cut	200
Small business relief plus anti-avoidance technical measures	215
Total	£3,015

of the higher rate bands is badly needed, since in the long term progressive income tax is being steadily undermined by inflation. But, despite the pleas of representative bodies, it is hard to see executives on £20,000 a year getting handouts this year on the scale of 1979.

As the table shows, the tide turned for them on 1977/78, although the statistics are a little misleading, because they have been calculated without full recognition of 1978 and 1979 fiscal drag.

This class of taxpayer will need to console himself with capital taxation cuts, to be devised by Lord Cockfield. Abolition of the current personal reliefs. Whatever solution is adopted, taxpayers at the lower end of the scale can expect this year, unlike last, to do better than those near the top. Of course, indexation.

Abolition of investment income surcharge—which is a relief for one, certainly regards as a capital tax—would cost another £215m, according to a recent Treasury estimate. Alternatively, he may get some relief from another set of

needed during the early formative years of a business, when corporate losses are not relieved against a proprietor's income and when money borrowed is still not fully deductible.

Technical changes of this class are administratively less costly and more in harmony with government policy of non-interventionism. They could justifiably be coupled with a new programme of anti-tax-avoidance measures.

Since abolition of exchange control, which itself acts as a brake, it has become obvious that the twin statutory hurdles of section 478 of the Income and Corporation Taxes Act 1970 (for individuals) and section 482 (for corporate taxpayers) need to be revised. Both are gratuitously penal in some respects and weak in others. These two sets of measures—lumped together—would break even in yield terms.

So how are the threshold incentives to be financed? Value-added tax as a source was heavily raided last year and only the last traditional refuge of Chancellor remains: the alcohol and tobacco syndromes in upon us once more.

After all, alcohol and tobacco are cheap in real terms. If indexation is to be applied to come thresholds, why not also to duties originally conceived on an *ad valorem* basis?

All this, plus the ability to restate the health hazards of smoking and drinking make one does an obvious virtue. No one is likely to consume alcohol and tobacco. The virtues of not doing so are about to become blindingly obvious.

Business Diary profile: C. G. Tracey, Rhodesian ubiquitous

On Wednesday, Zimbabwe-Rhodesia's armed forces will be called up and will stay on duty until next week's elections are over. A black government will then be in power.

As blacks move into power and influence in politics and business in the new state of Zimbabwe, Tracey will be saddled with the responsibility of running a modern complex nation with one white man in particular to thank for the opportunity of a preview of what is expected of them.

C. G. Tracey is a progressive businessman and farmer and a most remarkable white Rhodesian.

He runs one of the most successful farms in the country, is a racehorse breeder of note, and is chairman of no fewer than 35 companies.

He has become known outside Rhodesia since 1963 as founder chairman of the Zimbabwe-Rhodesian Promotion Council, a private sector organization which exists to promote Rhodesia's economy inside and outside the country. In the past ten years Tracey and his multiracial board has done much to “sell” their country to governments, foreign businessmen and the media.

Internally the promotion council has been what Tracey calls “bridge building” through regular dinners, meetings, symposia and organized visits to bring together the leaders and potential leaders of all racial communities.

As black politicians began slipping into power as parliamentarians, were appointed to

the Rhodesian equivalent of commercial boards so the Z-R PC decided it was essential that they knew how their country ticked.

Tracey's council took them to the vast sugar estates in the steamy low yield, to the big Risco iron and steel works in the Midlands, to mines, to the huge tobacco auction floors in Salisbury and to see modern farming operations. They met

leaders of the armed services, the Civil Service and of Rhodesian business.

Of Tracey, Dr Isaac Samuiri, a Salisbury black businessman and senator in the last Parliament, says: “Through his efforts many whites have learned that there were blacks of the highest calibre in any field. We need people like C. G. Tracey in the new state of Zimbabwe.”

Tracey is a man who could be trusted implicitly, and with his vast network of contacts he was soon to be seen in Whitehall, in Washington, in Paris.

The travel restrictions imposed on Rhodesians after UDI seemed rarely to hinder this ubiquitous Kissinging. Last year he visited Britain and Europe seven times as well as making side trips to America and the Far East.

Born 56 years ago, Christopher Geoffrey Tracey, or C. G. as he is better known, has no need to work so hard. He is wealthy and not ambitious for public office.

“I have been asked several times to stand for Parliament but I am too much of an individualist to do that,” he says. “To be obliged to shut up when I might disagree with a Cabinet, or caucus decision, would be too much for me,” he says.

He works so hard simply because he is a patriot of the old school. Both his parents came to Rhodesia 60 years ago.

to the cause of unity and who know no colour bar.”

Although firmly apolitical, Tracey was drawn unofficially more into the shadowy world of diplomacy as successive Rhodesian governments struggled vainly to reach a political settlement.

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Tracey's formal education ended at 15. He had passed his Oxford entrance exams, but the outbreak of the Second World War put paid to university prospects. With so many Rhodesians volunteering for active service in 1939 Godfrey Huggins's Southern Rhodesian government was obliged to compel many young men to stay at home and keep the agriculture industry going.

Young C.G. found himself at 20 managing five farms of local men who had gone off to war. By 22 he was appointed to his first board.

He says that over the past 5 years of UDI his country has emerged against all the odds as the most balanced and developed African country after South Africa.

“It was tragic when in 1965 UDI came and sanctions were imposed,” Tracey said. “I never agreed with UDI but equally I considered sanctions to be immoral. Once the status quo had happened I felt obliged to defend my country to the best of my ability. I saw various sectors of the economy being damaged by sanctions.”

“Love is almost a corny word to use but the greatest compliment ever paid to me was by someone who said I was a true patriot. So my love of my country is the right way. I suppose of describing oneself as a patriot is a bit of a cliché. It happens to think this is the best country there is and I am determined to try and keep it this way for all people, black and white.”

Frederick Cleary

Jobless aggravate Ulster troubles

Ulster industry has been through a hard winter. Particularly hard hit sectors have been the clothing textile and synthetic fibres.

The Government's decision last week not to apply quotas or tariffs against the mass import of cheap American polyester fibres, which are drastically undercutting the domestically produced alternatives, has caused profound disquiet.

There is no confidence that the EEC Commission's efforts to persuade the Americans to curb their exports will produce results.

Even if there were, at this late stage, to be protective measures they would be too late to save a large section of Northern Ireland's synthetic fibre industry. Courtaulds is well advanced on the total run-down of all its polyester operations in Northern Ireland and McCleery-L'Amie is also closing down production. The loss of jobs in Ulster's fibre plants since September last year exceeds 1,000.

In clothing and textiles the story is much the same. Last Thursday three announcements led to layoffs for more than 700 workers through lack of orders.

Lurgan, County Armagh, lost two old established clothing businesses within three days. Early this month both announced that they were to close through lack of orders and financial difficulties. Significantly, perhaps, one was a specialist manufacturer of industrial clothing; Lurgan itself, an important clothing town with more than 5,000 workers in the industry less than a decade ago, now has only 2,000 such jobs.

Shirtnamers, the economic prop of Londonderry—where

cynical unemployed men once remarked that the “traditional” title the Maiden City derived from its excess of women's work—has lost 400 jobs in the protective measures. They want drastic revision of the multi-fibre agreement which was meant to reduce the flood of cheap Third World imports. It is claimed that the agreement has not worked. While the domestic market has been severely hit the quality export

shipyard continues. After the redundancy of 600 workers last autumn another 470 are to be paid off at Easter which will leave the yard with less than 6,750. The yard's fortunes are in sight although it is not clear if its run of four heavily subsidised passenger/cargo ferries for British Rail will be followed by a similar order from P & O.

Not everything is gloomy on the Ulster industrial scene. Over the shipyard's well Shorrs, the plantmakers, has a building order book and, with 6,200 workers, is seeking another 300 qualified engineers, computer staff and skilled shopfloor operatives. The inflated pound is causing problems for this 35 per cent export-led company, although much of work is not one of the Shorrs's £30m contract for work on the Boeing 757 jetliner has been followed by news last week of a Ministry of Defence contract worth more than £20m for Blawie pumps for Britain's Territorial Army.

To the dismay of some of its critics who have tried to talk it into disaster from the day it was founded, the American De Lorean sports car project in south Belfast, which the British Government has a substantial stake, is up and largely equipped. Belfast's preproduction run and the workers are well on the way to being paid. The way to being paid will be made this summer less than two years after the deal was signed for the “green field” site.

The whitening down of Belfast's huge Harland and Wolff shipyard, once enjoyed by both clothing and textile manufacturers in Ulster, have largely disappeared. Apart from the effects of the steel strike upon food processing, even that important sector is seeing retrenchment and closures. Milk puddings are one of the more unlikely examples of the deindustrialisation of the United Kingdom with the decision of the Harland group to close its Pickling Foods subsidiary in Coleraine this summer.

Pickling's milk pudding and custard pudding operations, which have been a mainstay of the Harland group, are well on the way to being paid. The way to being paid will be made this summer less than two years after the deal was signed for the “green field” site.

Bob Rodwell



Not afraid to get his feet wet: C. G. Tracey, Rhodesia's advance man.

Stock Exchange Prices

Capitalization and week's change

ACCOUNT DAYS: Dealings Began, Feb 11. Dealings End, Feb 22. Contango Day, Feb 25. Settlement Day, March 3

§ Forward bargains are permitted on two previous days

(Current market price multiplied by the number of shares in issue for the stock quoted)

Stock	Price	Chg	Gross Div	Div Yld	Capitalization	Company	Price	Chg	Gross Div	Div Yld	Capitalization	Company	Price	Chg	Gross Div	Div Yld	Capitalization	Company	Price	Chg	Gross Div	Div Yld	
£			%	%	£				%	%	£				%	%	£				%	%	
BRITISH FUNDS																							
1000m Treas	94.4	+0.2	1980	8.9	5,689.18	1000m Treas	94.4	+0.2	1980	8.9	5,689.18	1000m Treas	94.4	+0.2	1980	8.9	5,689.18	1000m Treas	94.4	+0.2	1980	8.9	5,689.18
300m Treas	94.4	+0.2	1980	8.9	1,707.56	300m Treas	94.4	+0.2	1980	8.9	1,707.56	300m Treas	94.4	+0.2	1980	8.9	1,707.56	300m Treas	94.4	+0.2	1980	8.9	1,707.56
100m Treas	94.4	+0.2	1980	8.9	569.18	100m Treas	94.4	+0.2	1980	8.9	569.18	100m Treas	94.4	+0.2	1980	8.9	569.18	100m Treas	94.4	+0.2	1980	8.9	569.18
50m Treas	94.4	+0.2	1980	8.9	284.59	50m Treas	94.4	+0.2	1980	8.9	284.59	50m Treas	94.4	+0.2	1980	8.9	284.59	50m Treas	94.4	+0.2	1980	8.9	284.59
25m Treas	94.4	+0.2	1980	8.9	142.29	25m Treas	94.4	+0.2	1980	8.9	142.29	25m Treas	94.4	+0.2	1980	8.9	142.29	25m Treas	94.4	+0.2	1980	8.9	142.29
12.5m Treas	94.4	+0.2	1980	8.9	71.14	12.5m Treas	94.4	+0.2	1980	8.9	71.14	12.5m Treas	94.4	+0.2	1980	8.9	71.14	12.5m Treas	94.4	+0.2	1980	8.9	71.14
6.25m Treas	94.4	+0.2	1980	8.9	35.57	6.25m Treas	94.4	+0.2	1980	8.9	35.57	6.25m Treas	94.4	+0.2	1980	8.9	35.57	6.25m Treas	94.4	+0.2	1980	8.9	35.57
3.125m Treas	94.4	+0.2	1980	8.9	17.78	3.125m Treas	94.4	+0.2	1980	8.9	17.78	3.125m Treas	94.4	+0.2	1980	8.9	17.78	3.125m Treas	94.4	+0.2	1980	8.9	17.78
1.5625m Treas	94.4	+0.2	1980	8.9	8.89	1.5625m Treas	94.4	+0.2	1980	8.9	8.89	1.5625m Treas	94.4	+0.2	1980	8.9	8.89	1.5625m Treas	94.4	+0.2	1980	8.9	8.89
780m Treas	94.4	+0.2	1980	8.9	4,407.15	780m Treas	94.4	+0.2	1980	8.9	4,407.15	780m Treas	94.4	+0.2	1980	8.9	4,407.15	780m Treas	94.4	+0.2	1980	8.9	4,407.15
390m Treas	94.4	+0.2	1980	8.9	2,203.57	390m Treas	94.4	+0.2	1980	8.9	2,203.57	390m Treas	94.4	+0.2	1980	8.9	2,203.57	390m Treas	94.4	+0.2	1980	8.9	2,203.57
195m Treas	94.4	+0.2	1980	8.9	1,101.78	195m Treas	94.4	+0.2	1980	8.9	1,101.78	195m Treas	94.4	+0.2	1980	8.9	1,101.78	195m Treas	94.4	+0.2	1980	8.9	1,101.78
97.5m Treas	94.4	+0.2	1980	8.9	550.89	97.5m Treas	94.4	+0.2	1980	8.9	550.89	97.5m Treas	94.4	+0.2	1980	8.9	550.89	97.5m Treas	94.4	+0.2	1980	8.9	550.89
48.75m Treas	94.4	+0.2	1980	8.9	275.44	48.75m Treas	94.4	+0.2	1980	8.9	275.44	48.75m Treas	94.4	+0.2	1980	8.9	275.44	48.75m Treas	94.4	+0.2	1980	8.9	275.44
24.375m Treas	94.4	+0.2	1980	8.9	137.72	24.375m Treas	94.4	+0.2	1980	8.9	137.72	24.375m Treas	94.4	+0.2	1980	8.9	137.72	24.375m Treas	94.4	+0.2	1980	8.9	137.72
12.1875m Treas	94.4	+0.2	1980	8.9	68.86	12.1875m Treas	94.4	+0.2	1980	8.9	68.86	12.1875m Treas	94.4	+0.2	1980	8.9	68.86	12.1875m Treas	94.4	+0.2	1980	8.9	68.86
6.09375m Treas	94.4	+0.2	1980	8.9	34.43	6.09375m Treas	94.4	+0.2	1980	8.9	34.43	6.09375m Treas	94.4	+0.2	1980	8.9	34.43	6.09375m Treas	94.4	+0.2	1980	8.9	34.43
3.046875m Treas	94.4	+0.2	1980	8.9	17.21	3.046875m Treas	94.4	+0.2	1980	8.9	17.21	3.046875m Treas	94.4	+0.2	1980	8.9	17.21	3.046875m Treas	94.4	+0.2	1980	8.9	17.21
1.5234375m Treas	94.4	+0.2	1980	8.9	8.60	1.5234375m Treas	94.4	+0.2	1980	8.9	8.60	1.5234375m Treas	94.4	+0.2	1980	8.9	8.60	1.5234375m Treas	94.4	+0.2	1980	8.9	8.60
761.7m Treas	94.4	+0.2	1980	8.9	4,407.15	761.7m Treas	94.4	+0.2	1980	8.9	4,407.15	761.7m Treas	94.4	+0.2	1980	8.9	4,407.15	761.7m Treas	94.4	+0.2	1980	8.9	4,407.15
380.85m Treas	94.4	+0.2	1980	8.9	2,203.57	380.85m Treas	94.4	+0.2	1980	8.9	2,203.57	380.85m Treas	94.4	+0.2	1980	8.9	2,203.57	380.85m Treas	94.4	+0.2	1980	8.9	2,203.57
190.425m Treas	94.4	+0.2	1980	8.9	1,101.78	190.425m Treas	94.4	+0.2	1980	8.9	1,101.78	190.425m Treas	94.4	+0.2	1980	8.9	1,101.78	190.425m Treas	94.4	+0.2	1980	8.9	1,101.78
95.2125m Treas	94.4	+0.2	1980	8.9	550.89	95.2125m Treas	94.4	+0.2	1980	8.9	550.89	95.2125m Treas	94.4	+0.2	1980	8.9	550.89	95.2125m Treas	94.4	+0.2	1980	8.9	550.89
47.60625m Treas	94.4	+0.2	1980	8.9	275.44	47.60625m Treas	94.4	+0.2	1980	8.9	275.44	47.60625m Treas	94.4	+0.2	1980	8.9	275.44	47.60625m Treas	94.4	+0.2	1980	8.9	275.44
23.803125m Treas	94.4	+0.2	1980	8.9	137.72	23.803125m Treas	94.4	+0.2	1980	8.9	137.72	23.803125m Treas	94.4	+0.2	1980	8.9	137.72	23.803125m Treas	94.4	+0.2	1980	8.9	137.72
11.9015625m Treas	94.4	+0.2	1980	8.9	68.86	11.9015625m Treas	94.4	+0.2	1980	8.9	68.86	11.9015625m Treas	94.4	+0.2	1980	8.9	68.86	11.9015625m Treas	94.4	+0.2	1980	8.9	68.86
5.95078125m Treas	94.4	+0.2	1980	8.9	34.43	5.95078125m Treas	94.4	+0.2	1980	8.9	34.43	5.95078125m Treas	94.4	+0.2	1980	8.9	34.43	5.95078125m Treas	94.4	+0.2	1980	8.9	34.43
2.975390625m Treas	94.4	+0.2	1980	8.9	17.21	2.975390625m Treas	94.4	+0.2	1980	8.9	17.21	2.975390625m Treas	94.4	+0.2	1980	8.9	17.21	2.975390625m Treas	94.4	+0.2	1980	8.9	17.21
1.4876953125m Treas	94.4	+0.2	1980	8.9	8.60	1.4876953125m Treas	94.4	+0.2	1980	8.9	8.60	1.4876953125m Treas	94.4	+0.2	1980	8.9	8.60	1.4876953125m Treas	94.4	+0.2	1980	8.9	8.60
743.85m Treas	94.4	+0.2	1980	8.9	4,407.15	743.85m Treas	94.4	+0.2	1980	8.9	4,407.15	743.85m Treas	94.4	+0.2	1980	8.9	4,407.15	743.85m Treas	94.4	+0.2	1980	8.9	4,407.15
371.925m Treas	94.4	+0.2	1980	8.9	2,203.57	371.925m Treas	94.4	+0.2	1980	8.9	2,203.57	371.925m Treas	94.4	+0.2	1980	8.9	2,203.57	371.925m Treas	94.4	+0.2	1980	8.9	2,203.57
185.9625m Treas	94.4	+0.2	1980	8.9	1,101.78	185.9625m Treas	94.4	+0.2	1980	8.9	1,101.78	185.9625m Treas	94.4	+0.2	1980	8.9	1,101.78	185.9625m Treas	94.4	+0.2	1980	8.9	1,101.78
92.98125m Treas	94.4	+0.2	1980	8.9																			

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PERSONAL CHOICE



The unlabeled Sid Snot will be returning in The Kenny Everett Video Show tonight (see below)

● In my youth, which was not all that long ago really, the radio programme no self-respecting follower of fashion dared to miss was Jack Jackson's record show. It wasn't the music so much as the tapes with which the disc-spinning was punctuated: matches from the Goons, Round the Horne, Hancock's Half-Hour and the like. Compared with the innovative Jackson, all other disc jockeys were ordinary, and they remained so until Kenny Everett was unleashed upon an unsuspecting world. Everett's brash, iconoclastic humour made him a star—and also made him too hot for the BBC to handle—but radio never gave him the opportunity he exploits so brilliantly in The Kenny Everett Video Show (ITV, 7.00). Perhaps it is not too sweeping to say this is the most original show on television. Allegations that my favourite part is the Hot Gossip routines are entirely without foundation.

● An unusual detective story is the subject of Horizon (BBC 2, 7.30). The setting is the remote Lin Xian valley in central China, where 30 Chinese scientists have spent almost two decades trying to find out why the incidence of cancer of the oesophagus in the district is the highest in the world, and how it can be eradicated. The study indicates how easy it is for harmless chemicals to become deadly cancer agents through the basic processes of everyday life. The Lin Xian scientists discovered that things like soil, plants, fungus and even methods of cooking can produce carcinogens and their investigations illustrate the difficulties of combating a disease with such a multiplicity of subtle causes. Tonight's programme is to be followed up next Monday by a report on the western approach to the treatment of cancer and the possibility of a "wonder drug".

● I cannot pretend to be a committed Olympics-watcher, but I do find more excitement and entertainment in television's main function is to entertain it is not—in the Winter Games than in the boringly repetitive athletics that will fill our screens this summer. God and the politicians (no relation) will. Perhaps all that snow and ice does something for my northern temperament. Anyway, there is a strong element of drama in Olympic Grandstand (BBC 1, 6.45). Apart from Robin Davies going for a go to add to his European title, we have the prospect of a needle match in the pairs figure skating. The American couple Tai Babilonia and Randy Gardner won the world championship while the Soviet stars Irina Rodnina and Alexander Zaitsev were off the ice having a baby. Can the Americans win an Olympic gold, or will the Russians prove that they are still the best?

● Radio pays tribute to a triumph of Victorian eccentricity in the Khail of the Nomads (Radio 2, 8.45). The Khail of the Nomads is otherwise known as Charles Montagu Douglas (1854-1926), a poet and traveller whose book *Travels in Arabia Deserta*—a curious mixture of Chaucerian and Elizabethan English sprinkled with Arabic—has become a classic. Norman Rodway plays Douglas.

WHAT THE SYMBOLS MEAN: *STEREO; *BLACK AND WHITE; (r) REPEAT.

Broadcasting Guide

Edited by Peter Davalle

TELEVISION

BBC 1

6.40 am Open University: The Rimonian. Theorem: 7.05 ABC News. 7.30 Concorde Class Study. Closedown at 7.55.
9.00 For Schools. Colleges: A Good Job with Prospects (r); 9.30 Biology—The Kidney (r); 9.52 Communicate (r); 10.15 Music Time (r); 10.38 The Topics—Trigonometry (r); 11.00 Serve Yourself Right (r).
1.45 How Do You Do? Library Visit, with Carmen Munro (r).
2.01 For Schools. Colleges: Words and Pictures (r); 2.18 Japan—The Crowded Islands (r); 2.40 Going to Work (r). Close down at 3.00.
3.15 News from the Brighton (repeat from Sunday).
3.55 Play School presented by Chloe Aschcroft and Chris Tranchell. The story is The Line that

Caught the Bumps by Judy Whitfield.
4.20 Touche Turtle: Cartoon series (r).
4.35 Jackson: Prunella Scales (10 parable from Family Towers) reads Ursula Moray Williams' charming story Boggypop.
4.48 Heyty, It's the King: Cartoon.
5.00 John Craxie's Newsround (the best news programme on television, I've heard it said).
5.05 Blue Peter: Barney and Bumble, two Canadian beavers, take a dip in the studio.
5.35 The Pershires: Cartoon.
5.45 News from the Brighton.
5.55 Nationwide: Glyn Worsnip goes to work as a dustman in the first of three features entitled Glyn's London.
6.45 Olympic Grandstand: The Winter Games from Lake Placid (Nicky old David Coleman). Most British attention will be on Robin Cousins as he competes in the first stage of the men's figure skating. Also pairs skating and skiing (see Personal Choice).
8.10 Panorama: The unpleasantness of the National Liberal Club, an investigation into the strange dealings at the famous political establishment during the time

when it was run by a self-styled Canadian millionaire.
9.00 News with Peter Woods.
9.25 Monday Night: The Blue Knight (1973). First showing on British television of a tough cop drama set in Los Angeles and based on a novel by Joseph (the Choir Boys) Wambaugh. William Holden and Lee Remick star.
11.05 Film 80 Barry Norman talks to Dustin Hoffman about the weepie to end all weepies, Kramer vs. Kramer. On a review of Rising Damp—the Movie, based on the inspired and popular television series.
12.05 News headlines.
12.37 Education Matters: Adam Hopkins talks to Ann Briggs about the quality of higher education and the effect of planned spending cuts.
1.25 News headlines.

Regions

BBC 1 VARIATIONS: Wales: 1.45 pm News from the BBC. 2.00 Wales Today. 2.15 Wales Today. 2.30 Wales Today. 2.45 Wales Today. 3.00 Wales Today. 3.15 Wales Today. 3.30 Wales Today. 3.45 Wales Today. 4.00 Wales Today. 4.15 Wales Today. 4.30 Wales Today. 4.45 Wales Today. 5.00 Wales Today. 5.15 Wales Today. 5.30 Wales Today. 5.45 Wales Today. 6.00 Wales Today. 6.15 Wales Today. 6.30 Wales Today. 6.45 Wales Today. 7.00 Wales Today. 7.15 Wales Today. 7.30 Wales Today. 7.45 Wales Today. 8.00 Wales Today. 8.15 Wales Today. 8.30 Wales Today. 8.45 Wales Today. 9.00 Wales Today. 9.15 Wales Today. 9.30 Wales Today. 9.45 Wales Today. 10.00 Wales Today. 10.15 Wales Today. 10.30 Wales Today. 10.45 Wales Today. 11.00 Wales Today. 11.15 Wales Today. 11.30 Wales Today. 11.45 Wales Today. 12.00 Wales Today. 12.15 Wales Today. 12.30 Wales Today. 12.45 Wales Today. 1.00 Wales Today. 1.15 Wales Today. 1.30 Wales Today. 1.45 Wales Today. 2.00 Wales Today. 2.15 Wales Today. 2.30 Wales Today. 2.45 Wales Today. 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Spring Bargains
 Beach on the Greek Island of I
£118!
 beaches on the Greek Island
£109!
 12 prices are per person for
 private parties, price does not in
 clude wine. Flight only available by
 brochure by return of post.
AT HOLIDAYS
 Road, London, S.W.10
 01-351 2356

ATOL.

FOR SALE

RESISTA CARPET
LTD.
 Warehouse clearance of
 carpets.
 Walnut pile, 10 yards, 6
 ply 34, 34, 34, 34, 34, 34, 34, 34
 Heavy quality Berber, 5
 ply, 34, 34, 34, 34, 34, 34, 34, 34
 148 Wandsworth Bridge P
 Fulham, S.W.6.
 01-701 3558/9
 48-hr. Fitting Service.
 London's largest
 suppliers of plastic carpe

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or anything photographic
until you have seen the
F.C. specialists. EURO-
VISION offers the most
special and lower prices,
all services and a person-
nal and amazing display
of all the photographic
FOTO CENTRO, Hines Rm.
Telephone West 44-1111.
Healthway aircraft, M4, jet
and all aircraft, bargains
for prices and details of
value of aircraft, bargains
(personal export facilities
overseas visitors.)

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really dirt prices. Visit us
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and see our full range of
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BOSENDORFER
IMPERIAL CONCERT
GRAND PIANO FOR SALE**

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£16,000 o.n.o.

Tel.: 02518 3223

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Muel be a Mackeson Piano.
look at piano sales when
normal prices are checked
and find hundreds of
and grand in caecus from
and you know how to
purchase plan makes
and paying less.

MACKESON PIANOS
Alberta, Cdn. W-536
Artery, P.E. S. 1
Q-2-82 3317

CURTAINS FOR HOME — D
brought to your home and
dresses and bed curtains
and expertly made and fitted.
don't forget and surround
suremade. Q-104 0398
Rutala 76331.

OBTAINABLES — We obtain in
obtainable. Tickets for
and information. In
Regby. 01-839 8365.

BLUE FOX — New, full length
coat for sale. \$1,500 or
offer.

FULL SIZE BILLARD (smoke
and billiard) for sale.
(early 1900s). Complete
table and chairs. Offer
to Roy Mott. Enclosure
with photograph of table.
2098.

COUSIN PAUL VIVRE — A
young man of this invaluable
and trustworthy character
available in Abstracts from
Journals of the Institute of
Defence at 89¢.

[illegible][illegible][illegible]

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